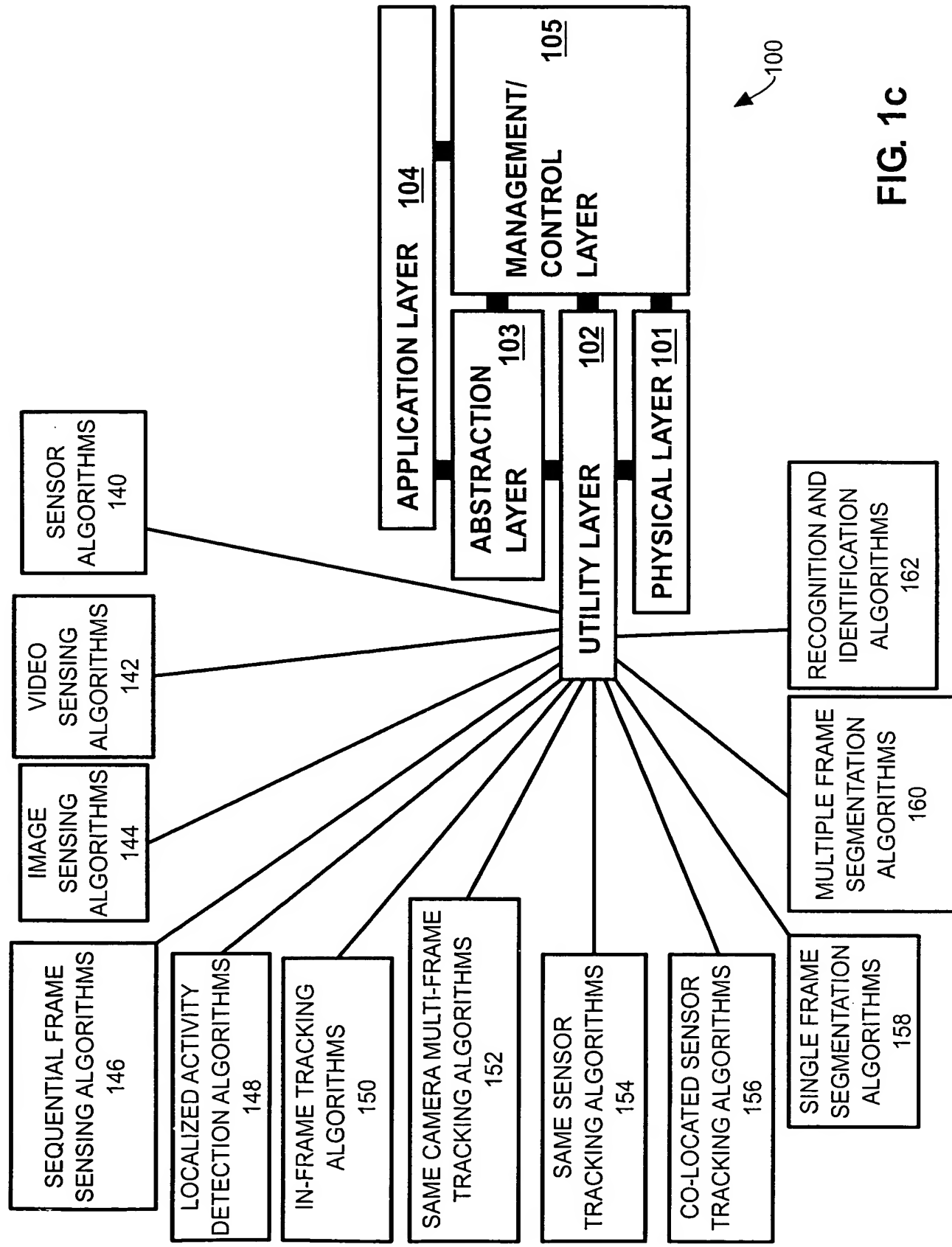


**FIG. 1b**



**FIG. 1c**

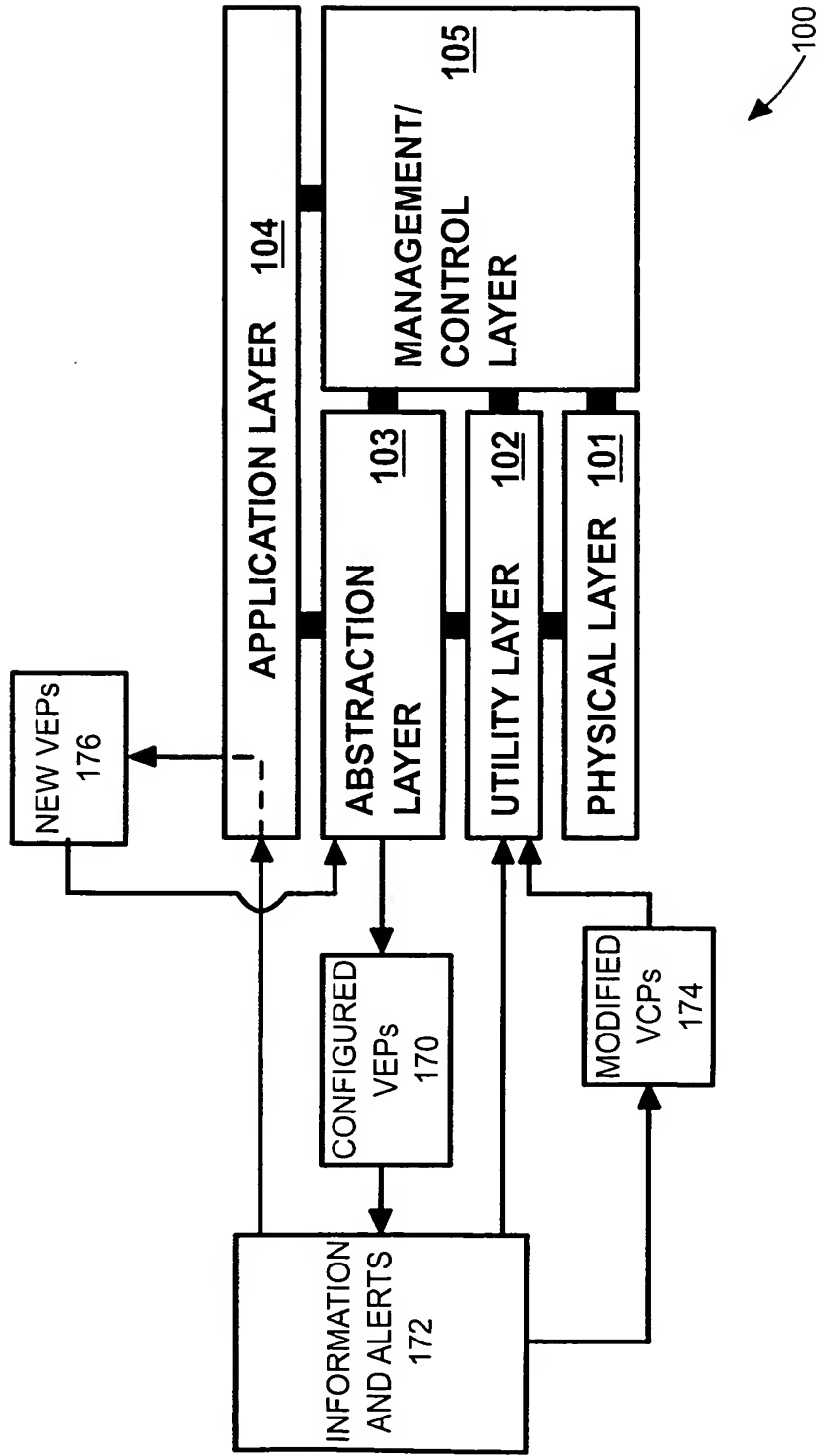
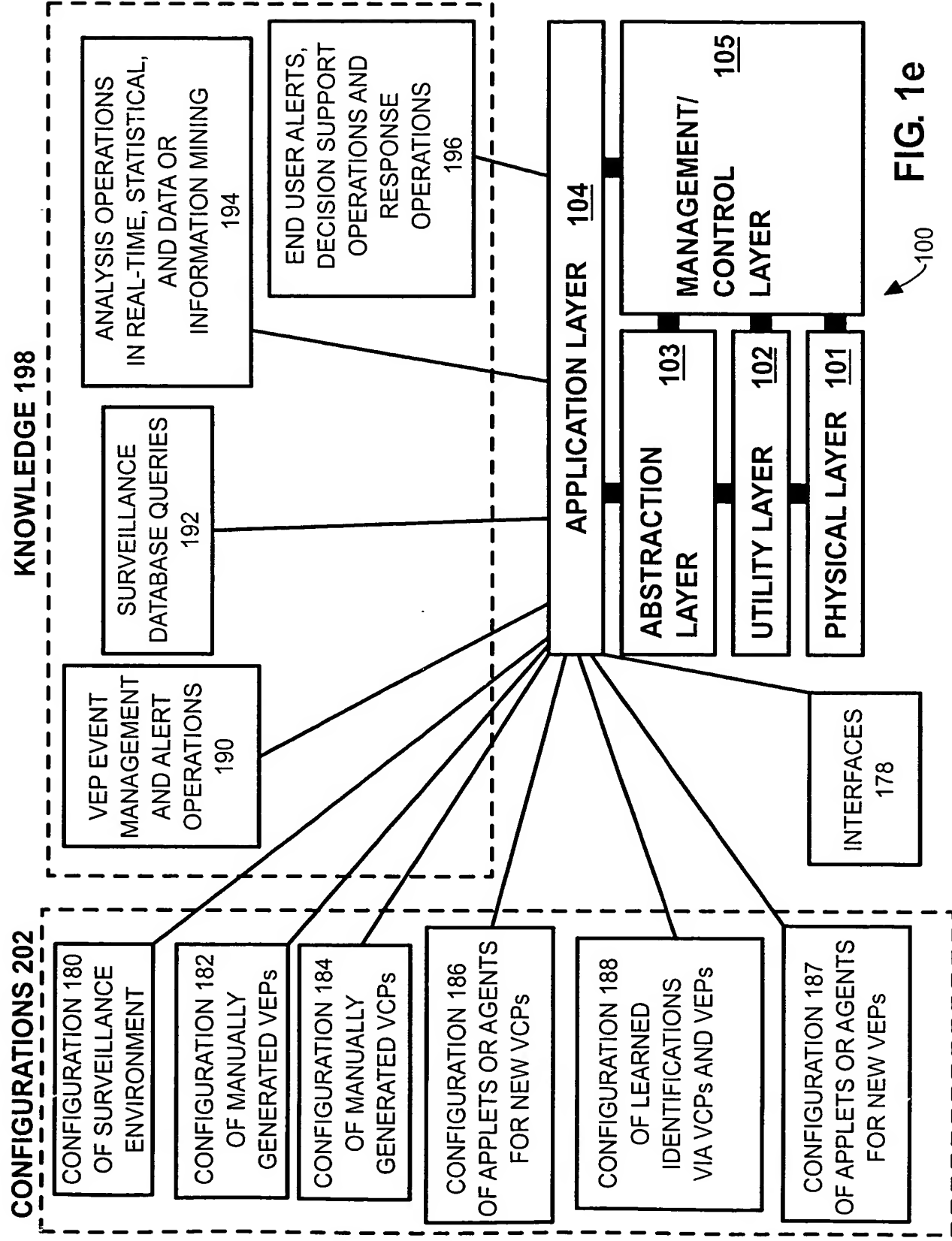


FIG. 1d



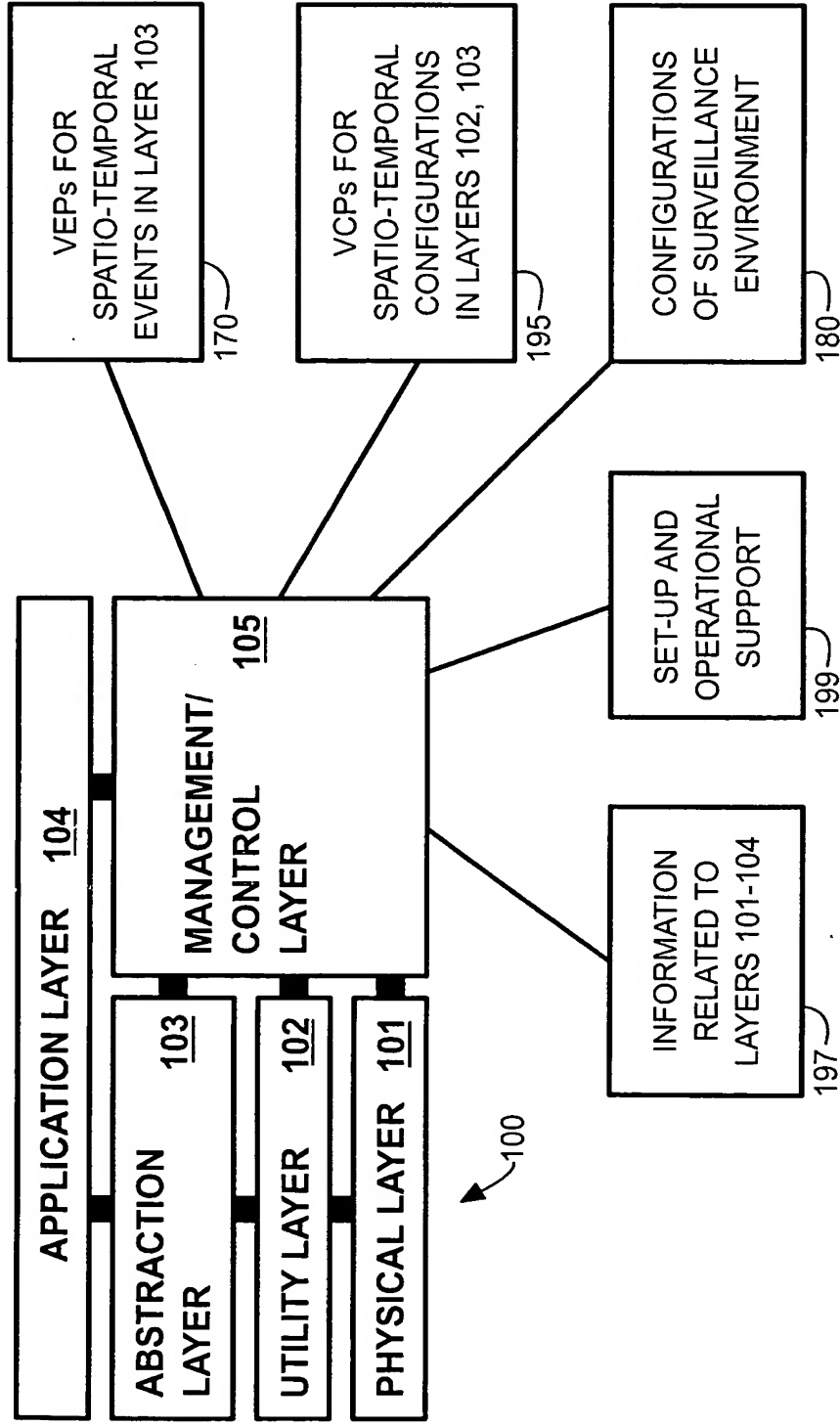


FIG. 1f

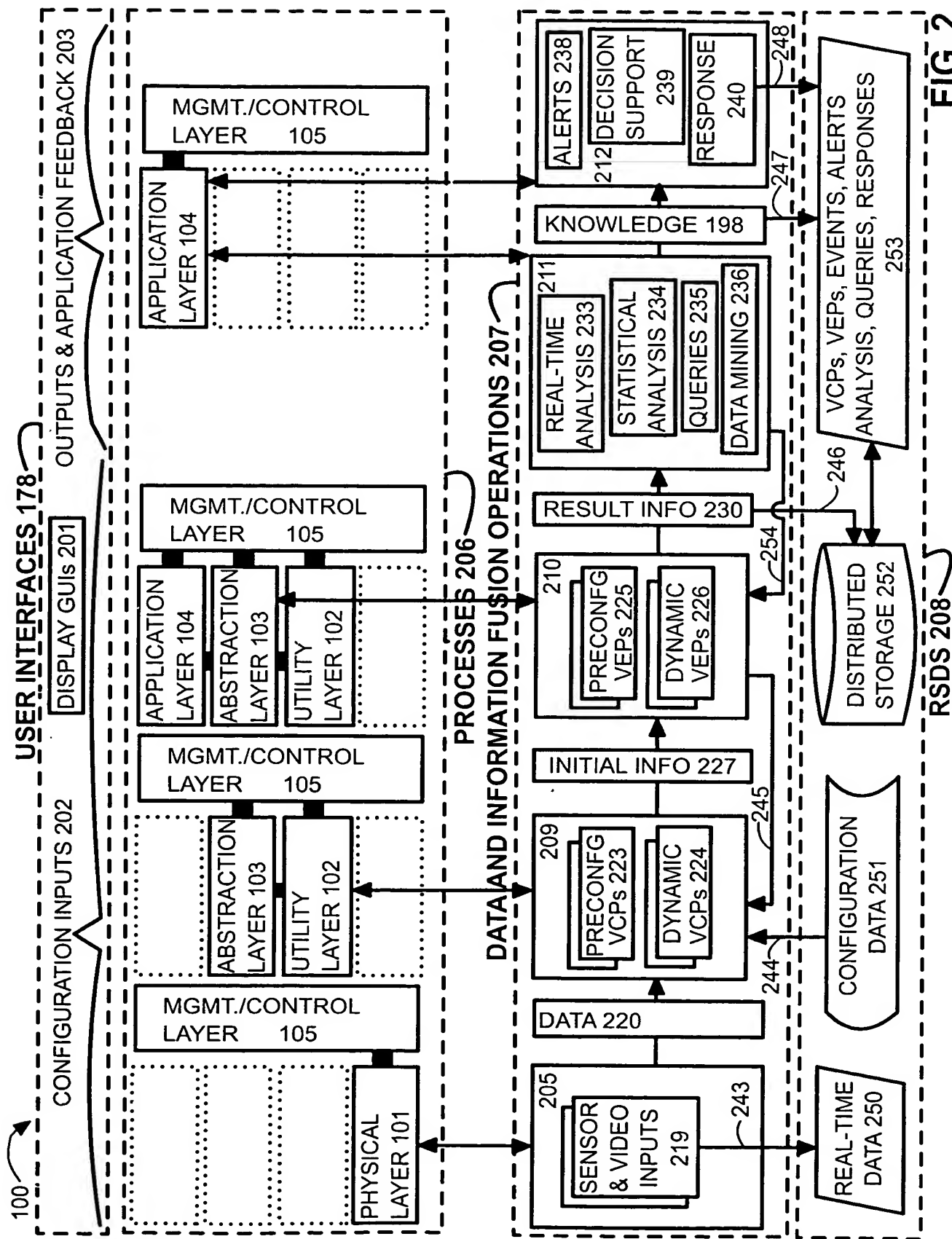
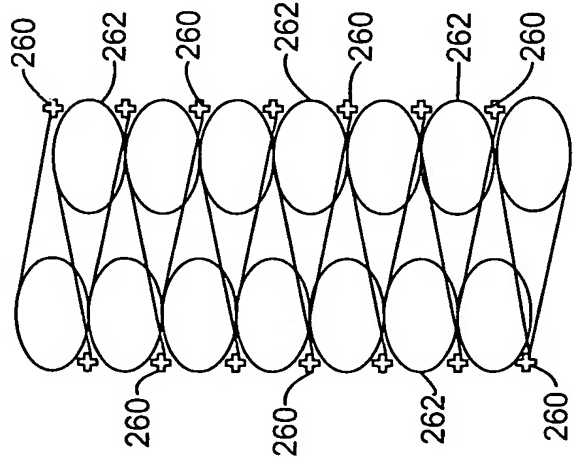
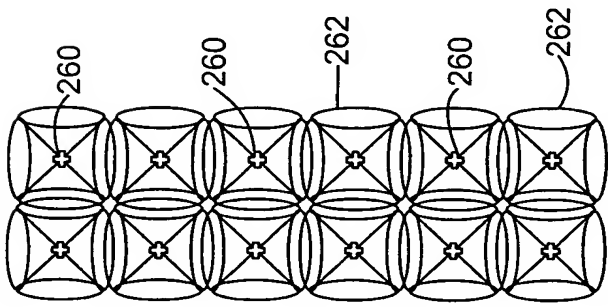


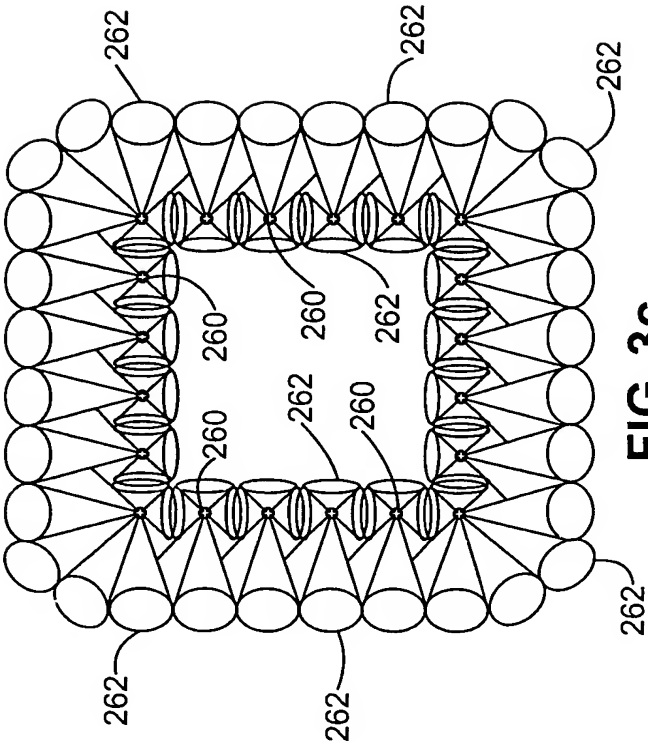
FIG. 2



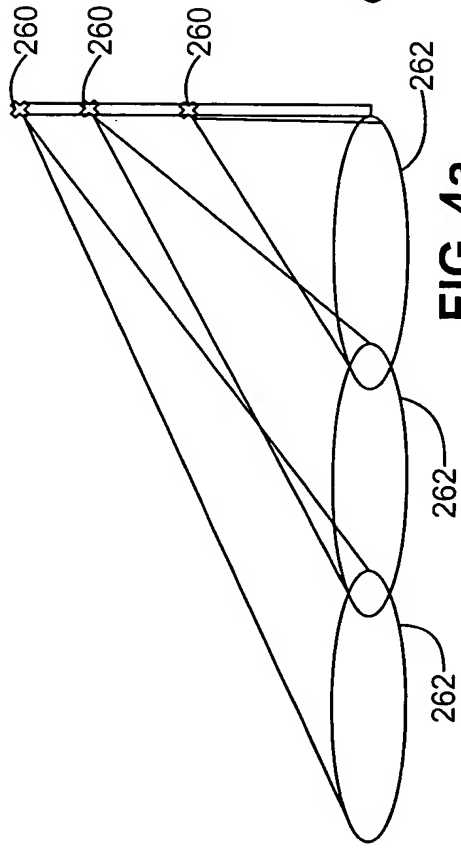
**FIG. 3a**



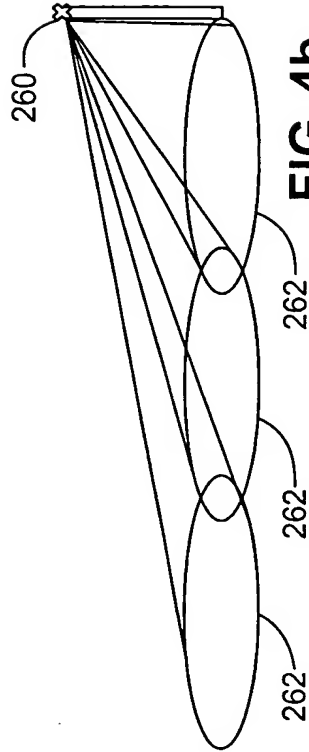
**FIG. 3b**



**FIG. 3c**

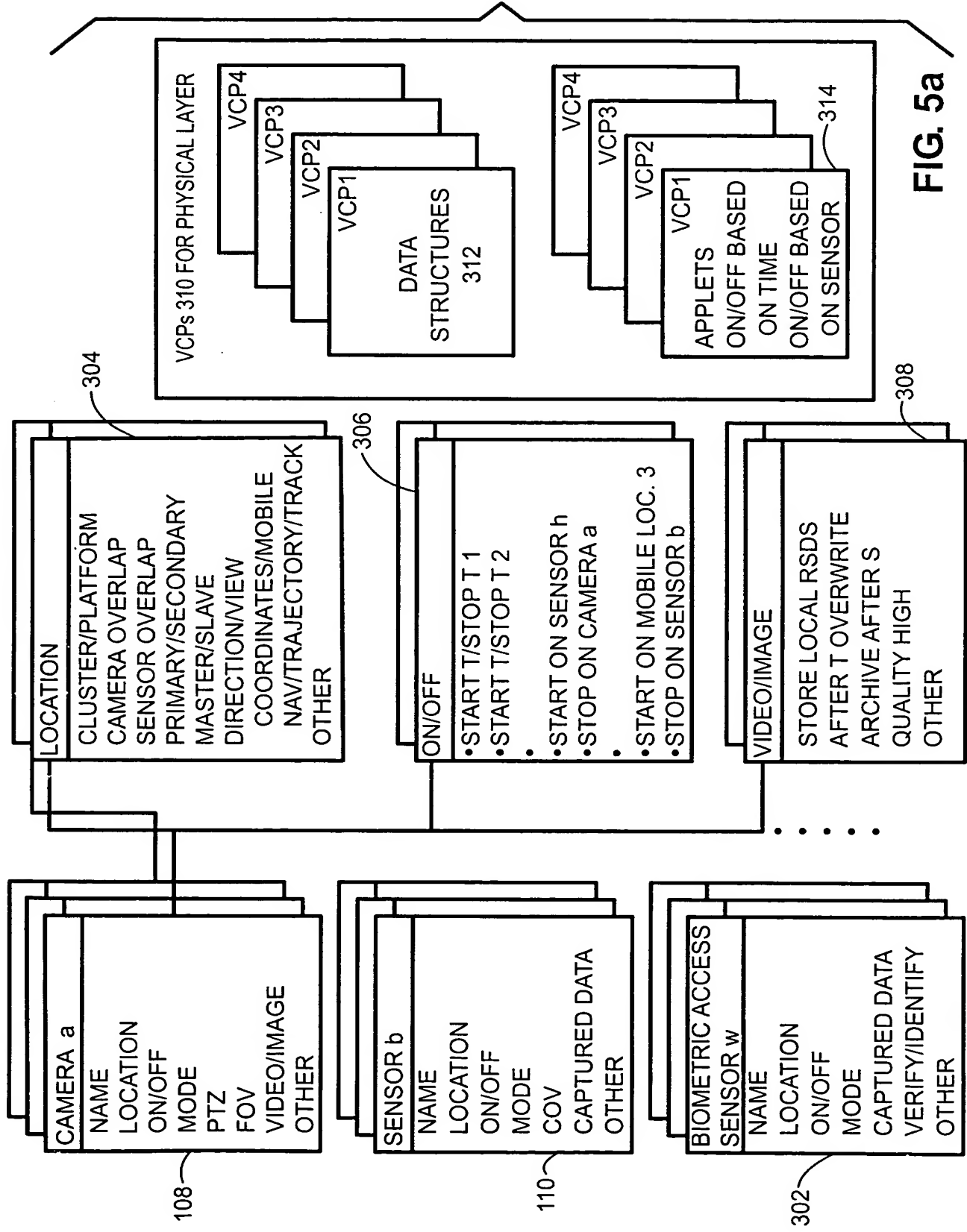


**FIG. 4a**



**FIG. 4b**





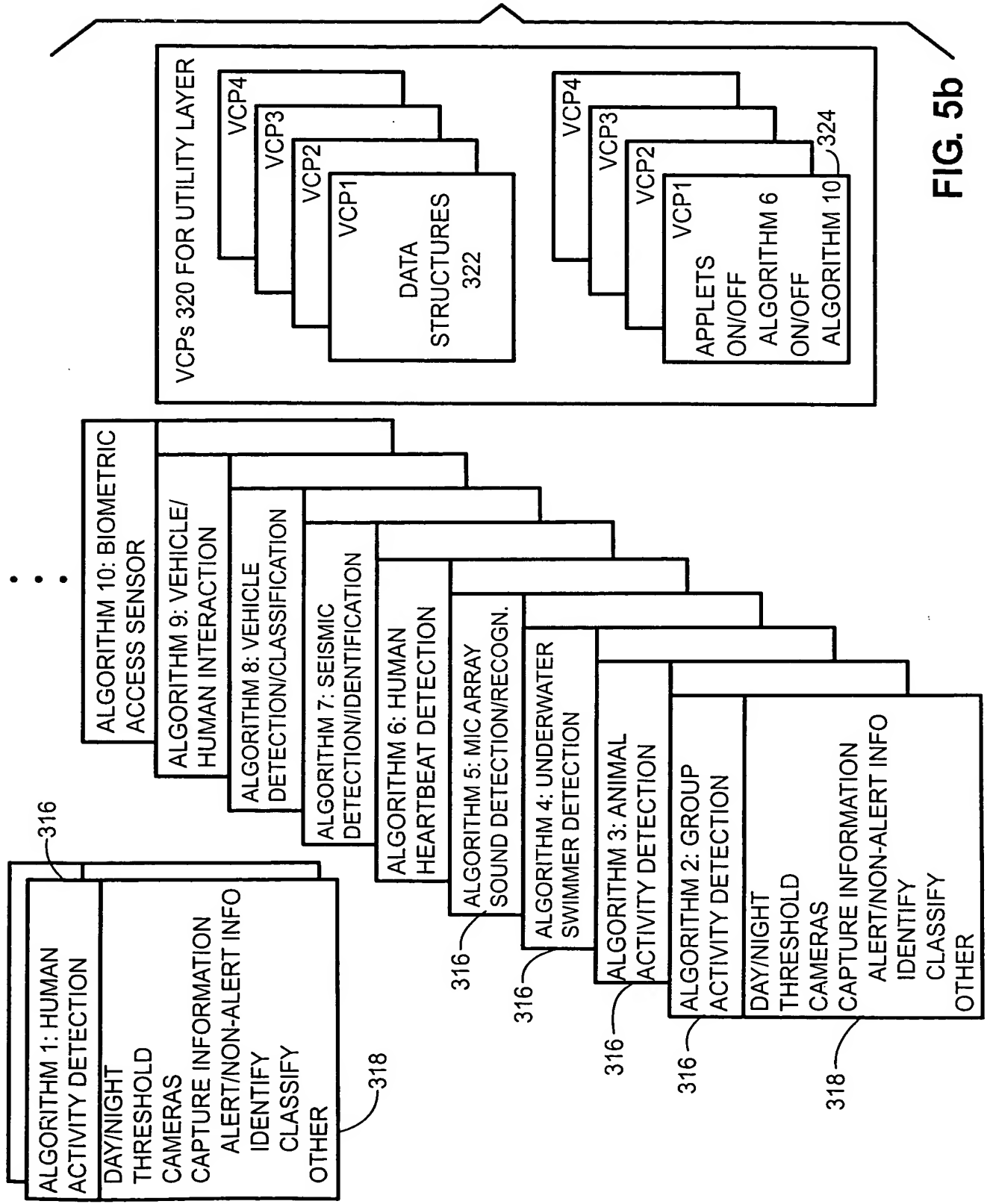


FIG. 5b

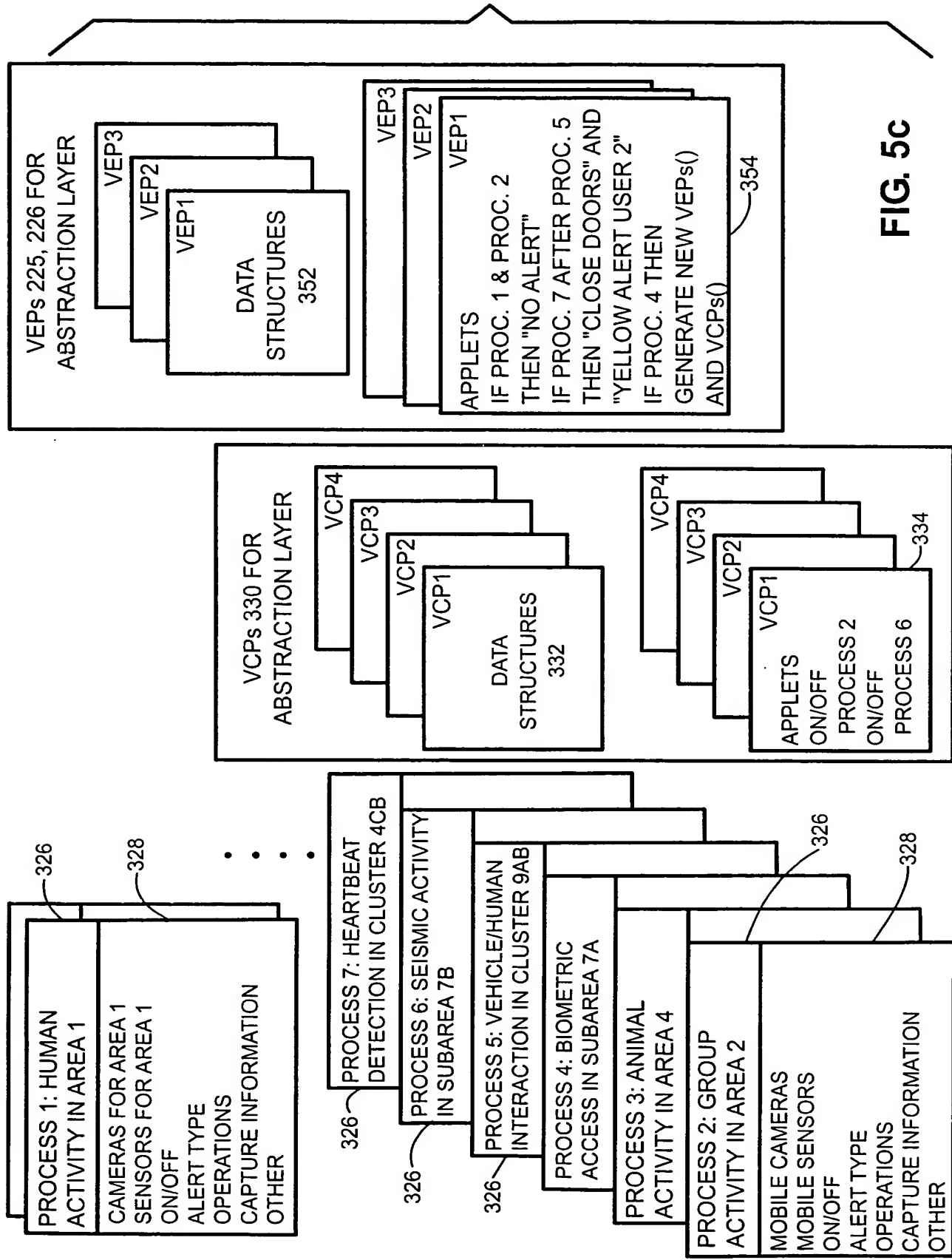
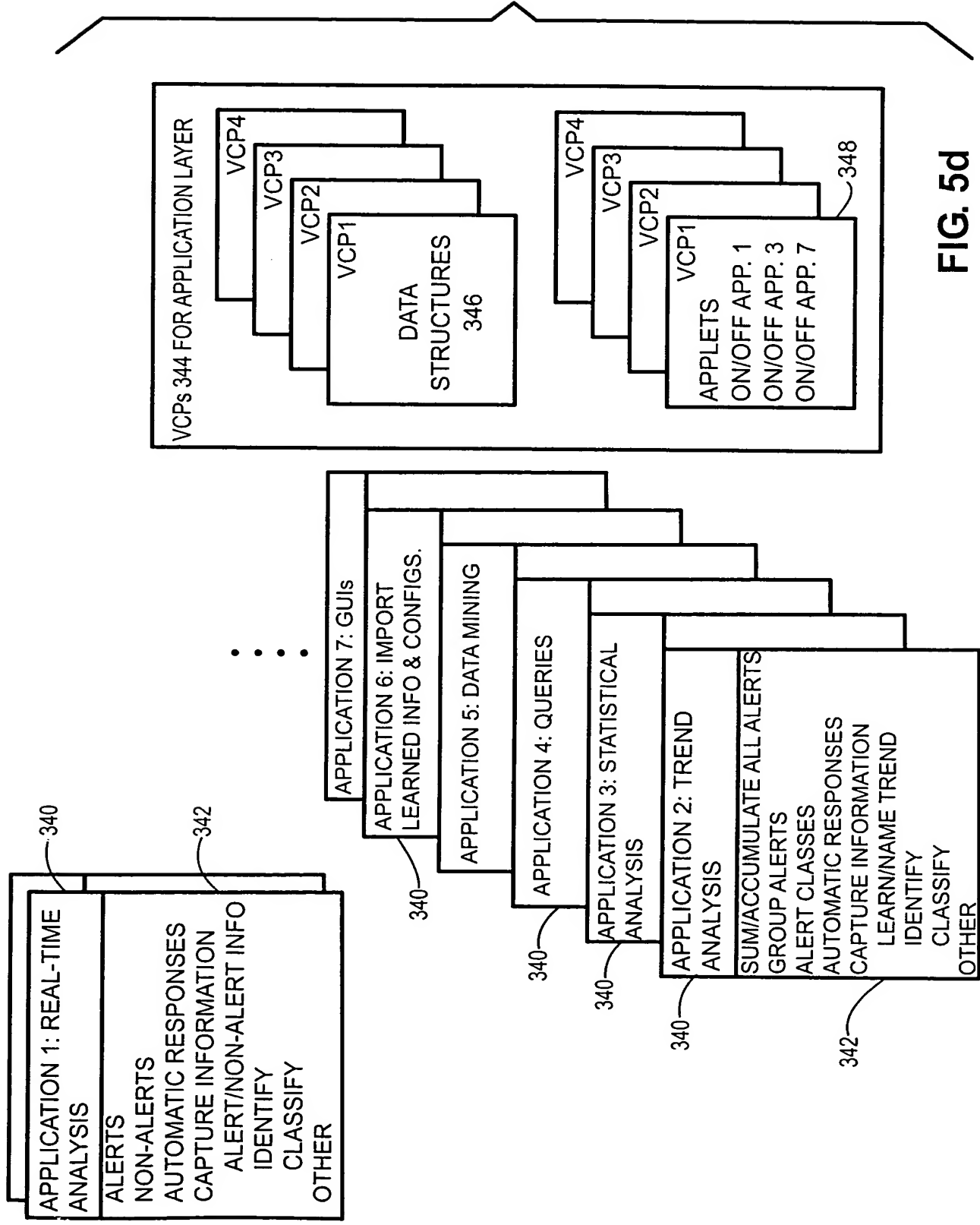


FIG. 5c



**FIG. 5d**

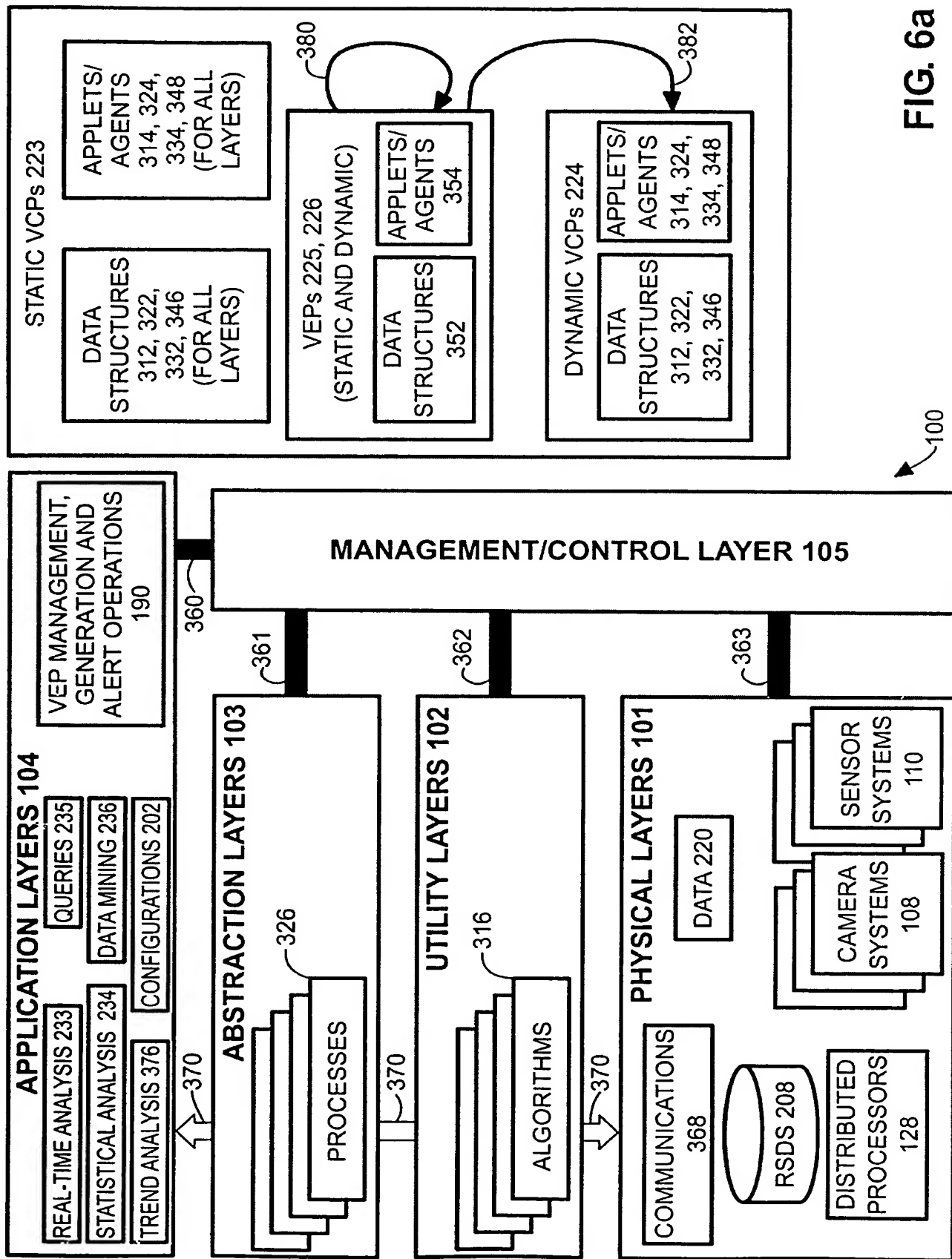
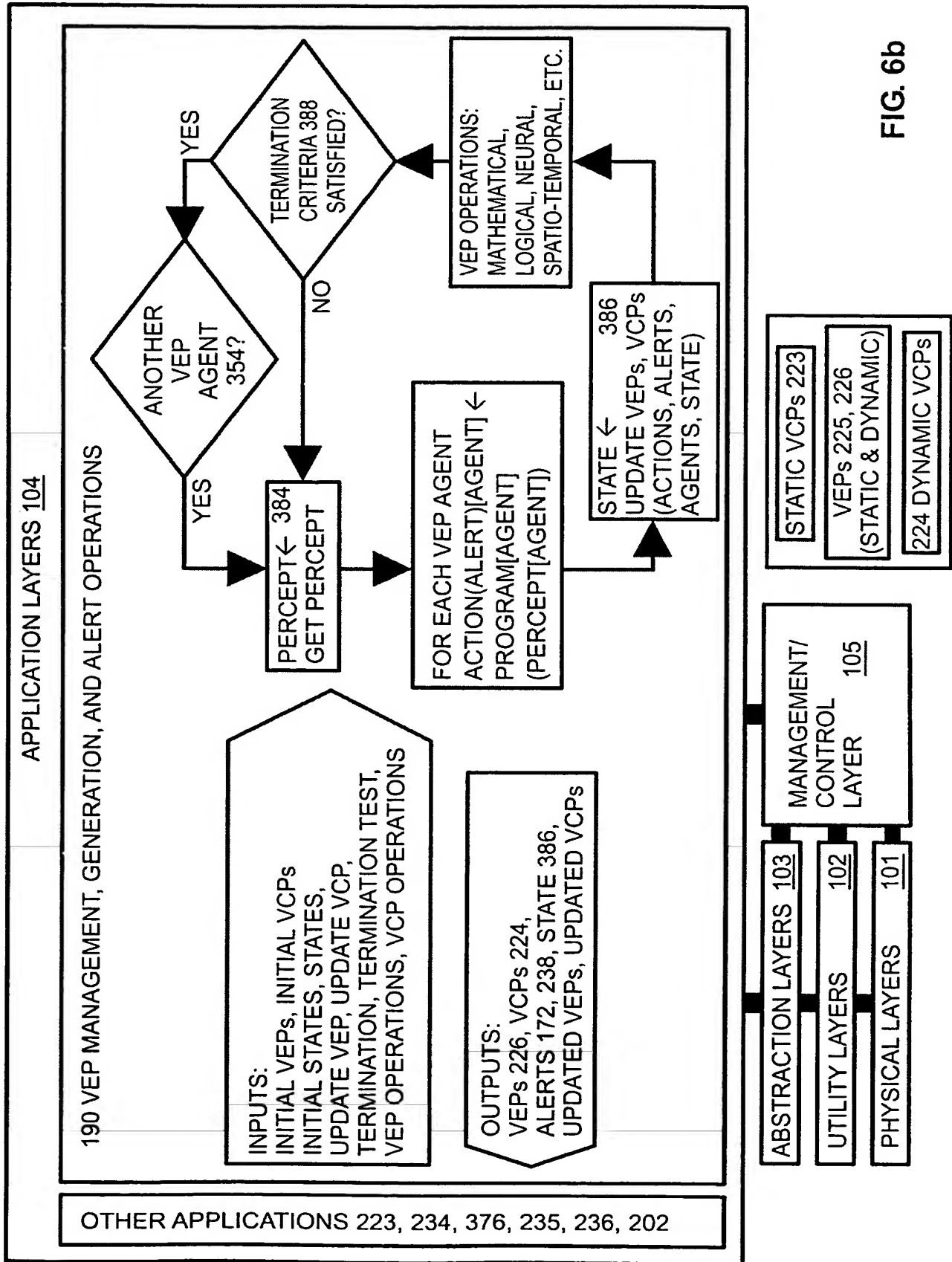
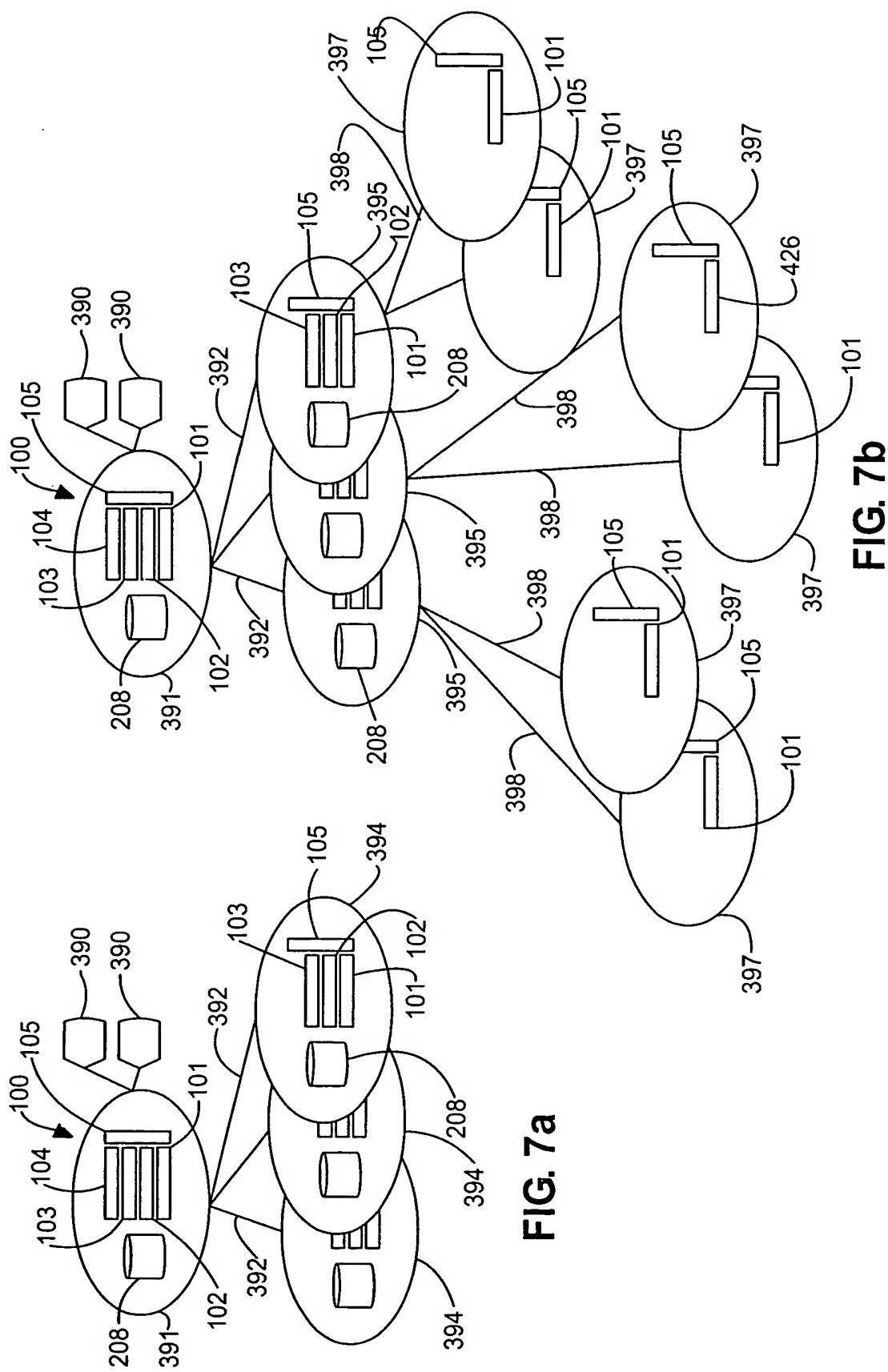


FIG. 6a



**FIG. 6b**



**FIG. 7a**

**FIG. 7b**

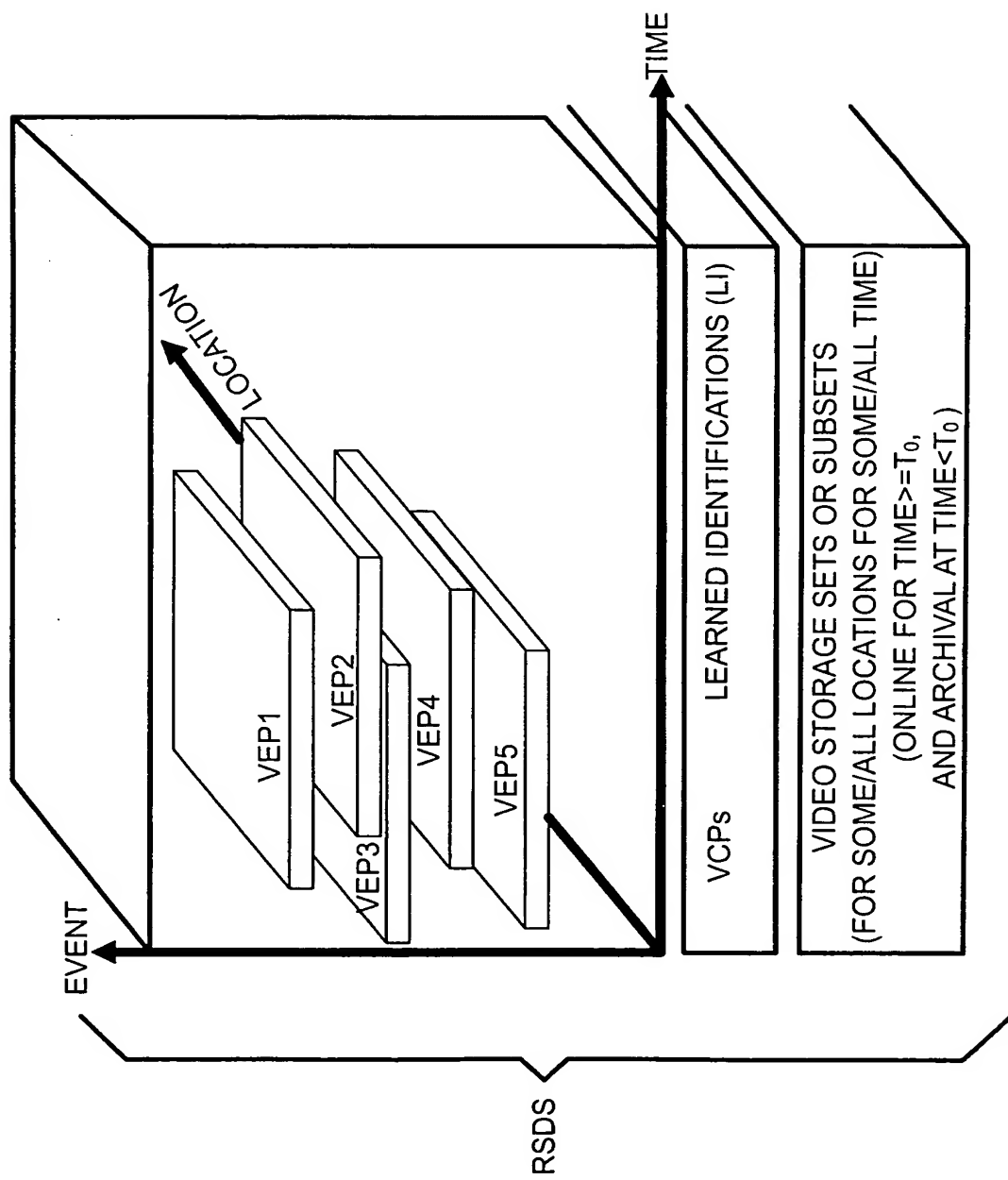


FIG. 8



**APPLICATION LAYER: 104**

- ENVIRONMENT CONFIGURATION
- IDENTIFICATION LEARNING (STORE/RETRIEVE)
- CONFIGURATION OF VCPs (WITH GUI)
- ALERTING AND RESPONDING
- ALERTING AND RESPONDING VIA APPS (WITH GUI)
- DECISION SUPPORT APPLICATIONS
- QUERIES

**ABSTRACTION LAYER:**

**103**

- HUMAN ACTIVITY ALERTS VIA VEPs
- VEHICLE ACTIVITY ALERTS VIA VEPs
- VESSEL ACTIVITY ALERTS VIA VEPs
- OTHER ALERTS VIA VEPs

**UTILITY LAYER:**

**102**

- DETECTION SYSTEMS AS PER VCPs
- MULTI-SENSOR ALGORITHM MANAGEMENT
- ACTIVITY SENSOR ALGORITHMS
- IMAGE/VIDEO SENSOR PROCESSING ALGORITHMS
- RECOGNITION/IDENTIFICATION VIA VCP DRIVEN ALGORITHMS
- HUMAN ACTIVITY RECOGNITION
- VEHICLE ACTIVITY RECOGNITION
- HUMAN/VEHICLE INTERACTION RECOGNITION
- VESSEL ACTIVITY RECOGNITION
- HUMAN/VESSEL INTERACTION RECOGNITION
- OTHER ACTIVITY RECOGNITION

**PHYSICAL LAYER:**

**101**

- CAMERA SYSTEMS
- SENSOR SYSTEMS AND CONTROLS
- INTEGRATED SYSTEMS (CAMERA + SENSORS)
- IMAGING MODES & PTZ CONTROLS
- DIGITAL STORAGE & RETRIEVAL SYSTEM
- NETWORKING SYSTEM

**MANAGEMENT/**

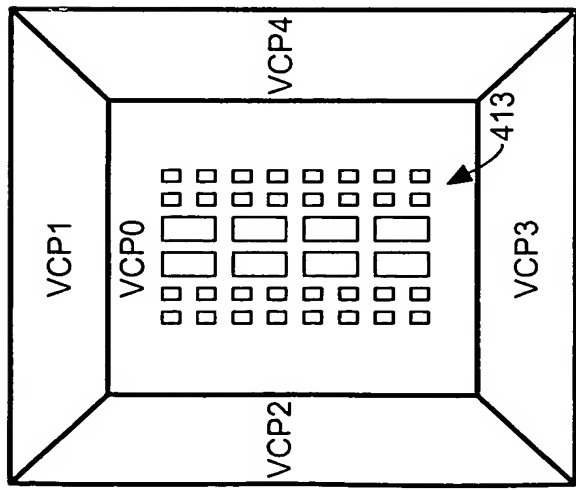
**CONTROL LAYER**

**105**

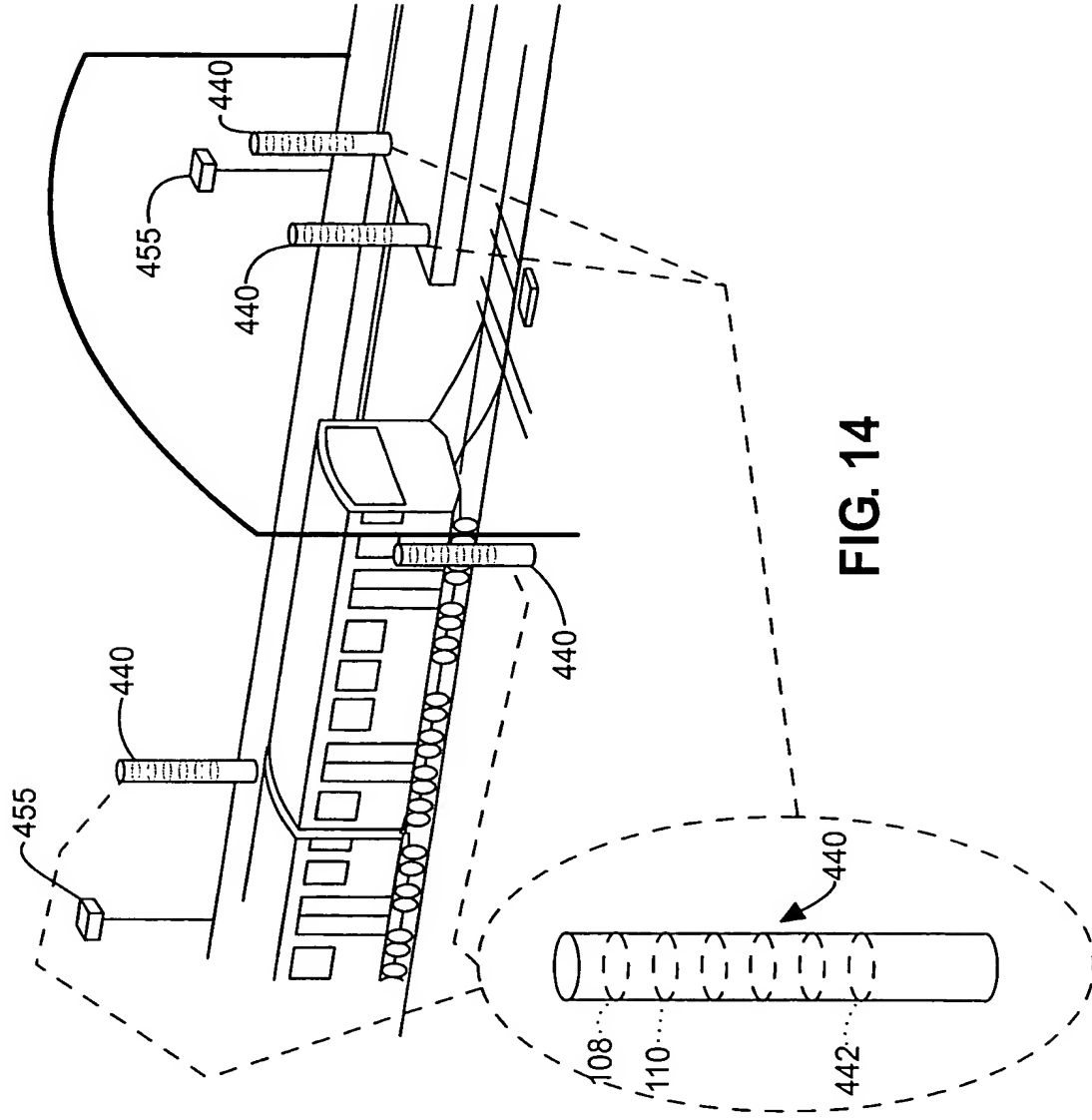
- SET UP SURVEILLANCE ENVIRONMENT
- VIRTUAL EVENT PERIMETERS (VEPs) FOR SPATIO-TEMPORAL EVENTS
- VIRTUAL CONFIGURATION PERIMETERS (VCPs) FOR SPATIO-TEMPORAL CONFIGURATIONS

100a

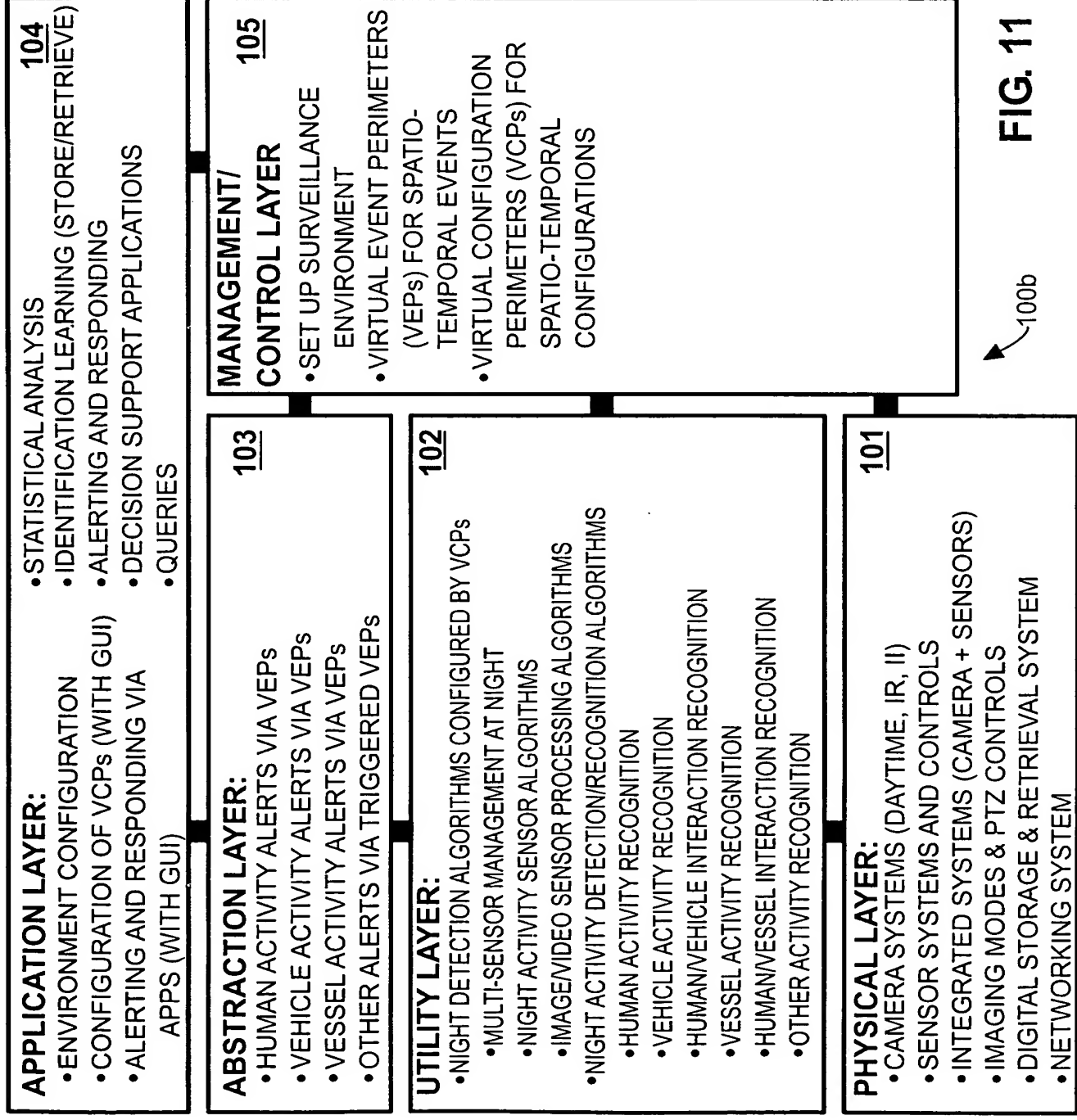
**FIG. 9**



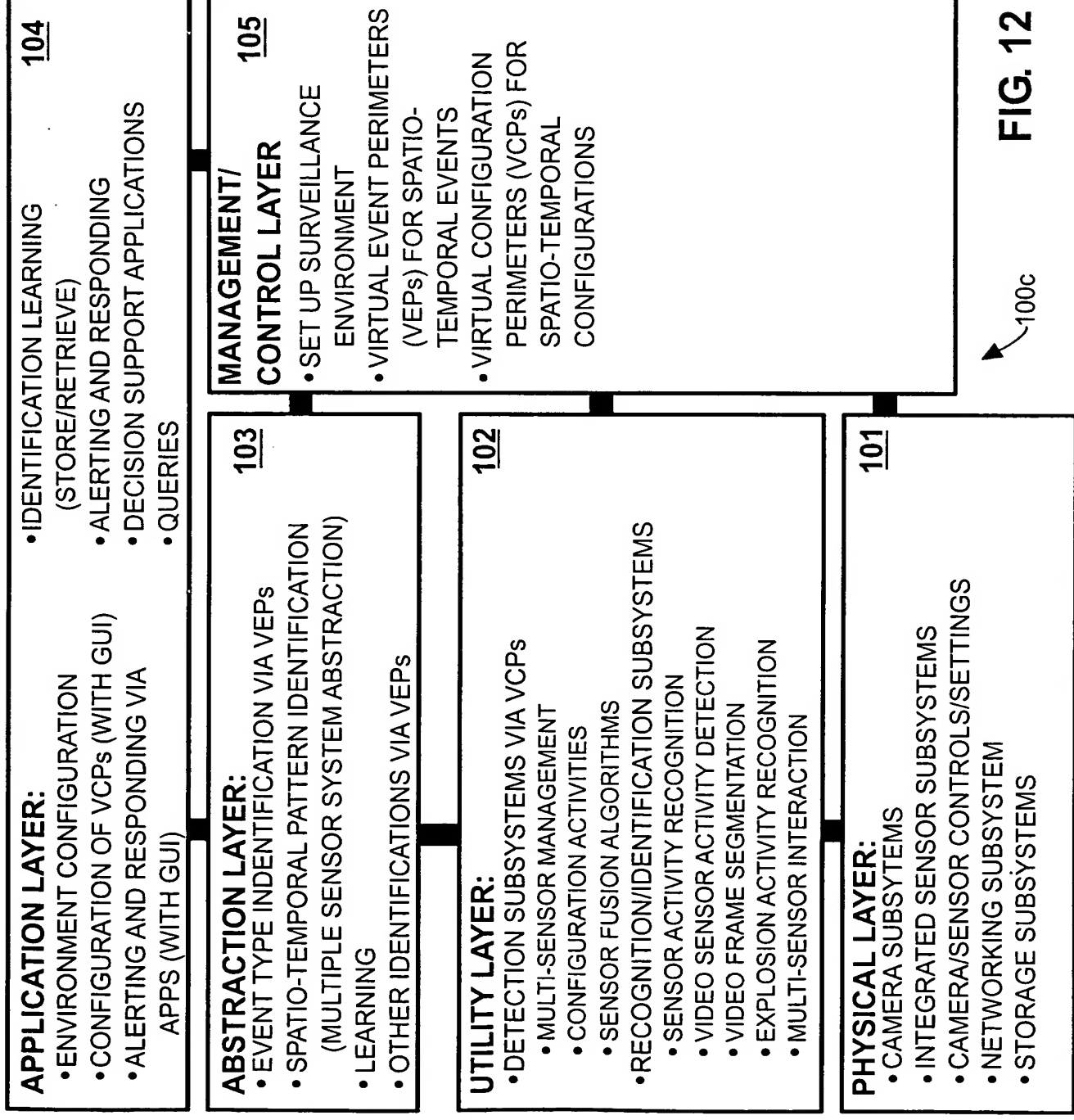
**FIG. 10**



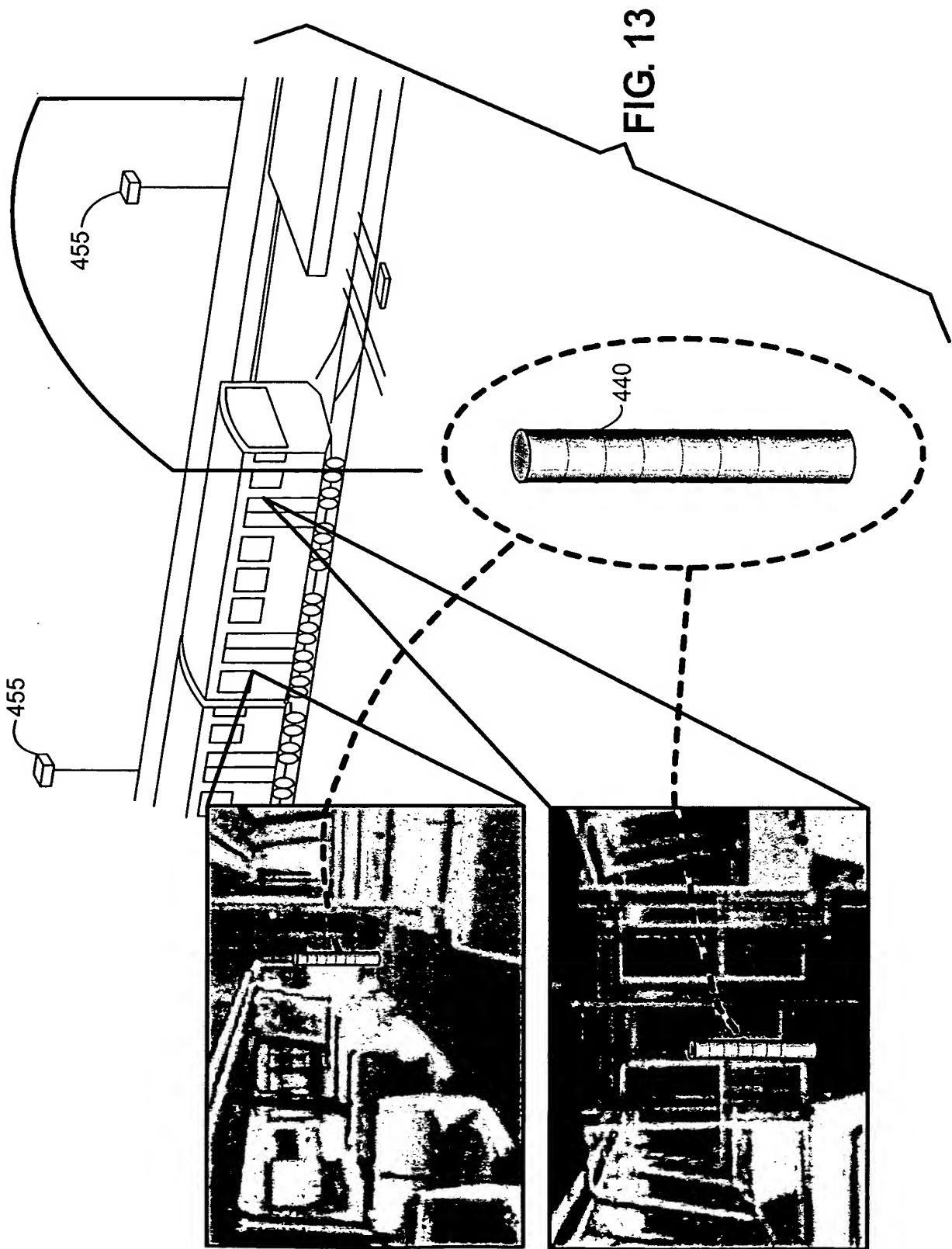
**FIG. 14**

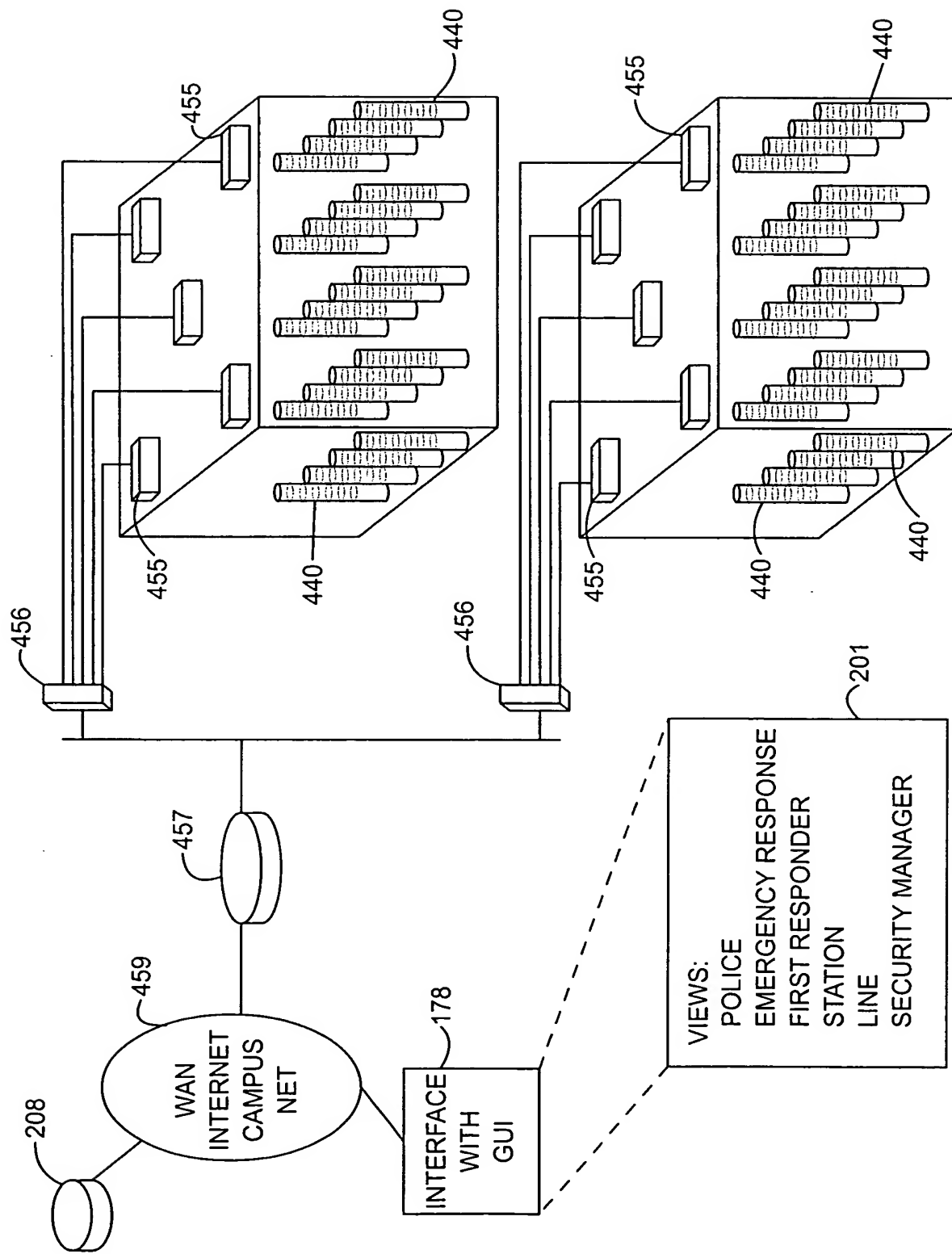


**FIG. 11**



**FIG. 12**





**FIG. 15**

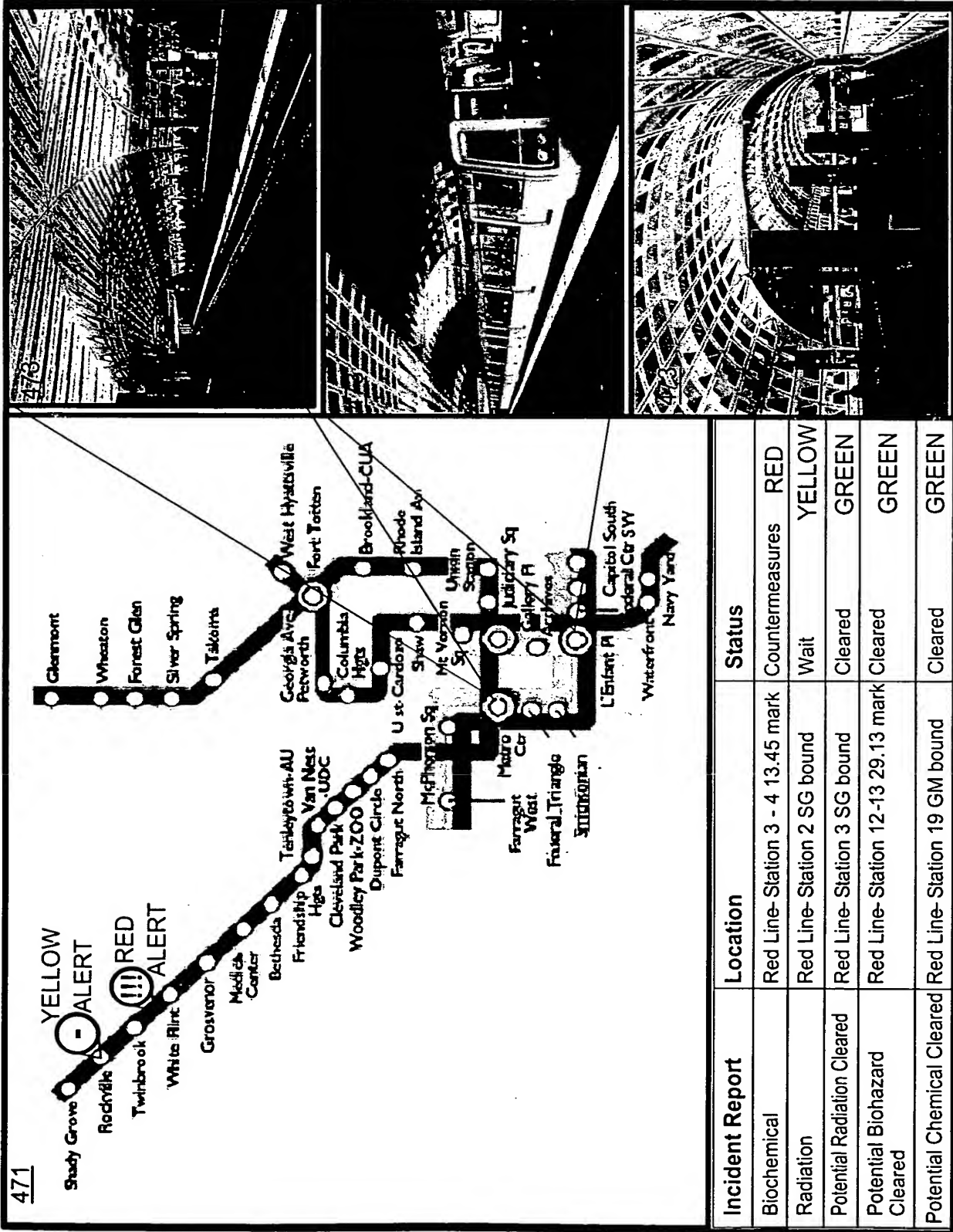
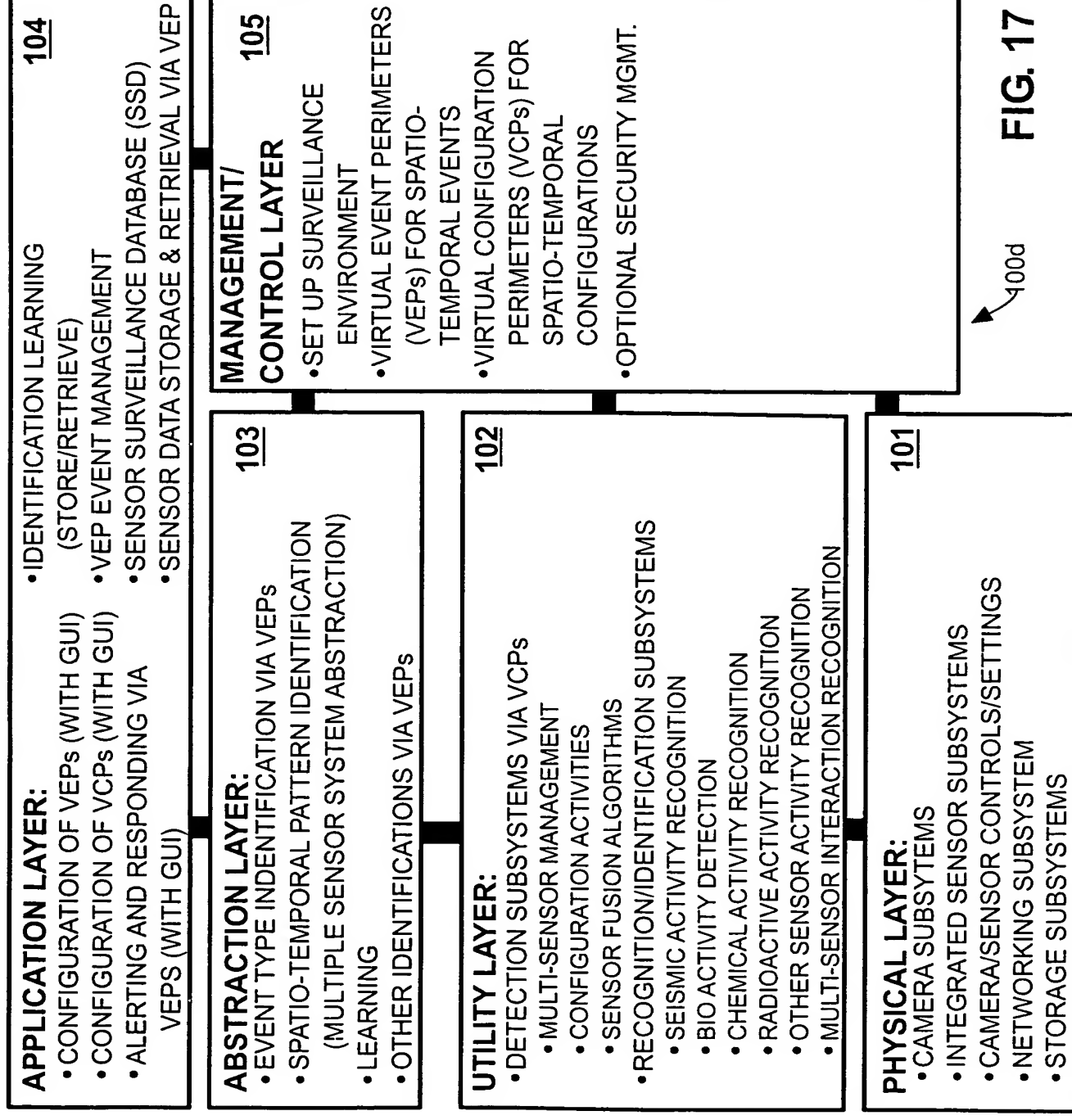
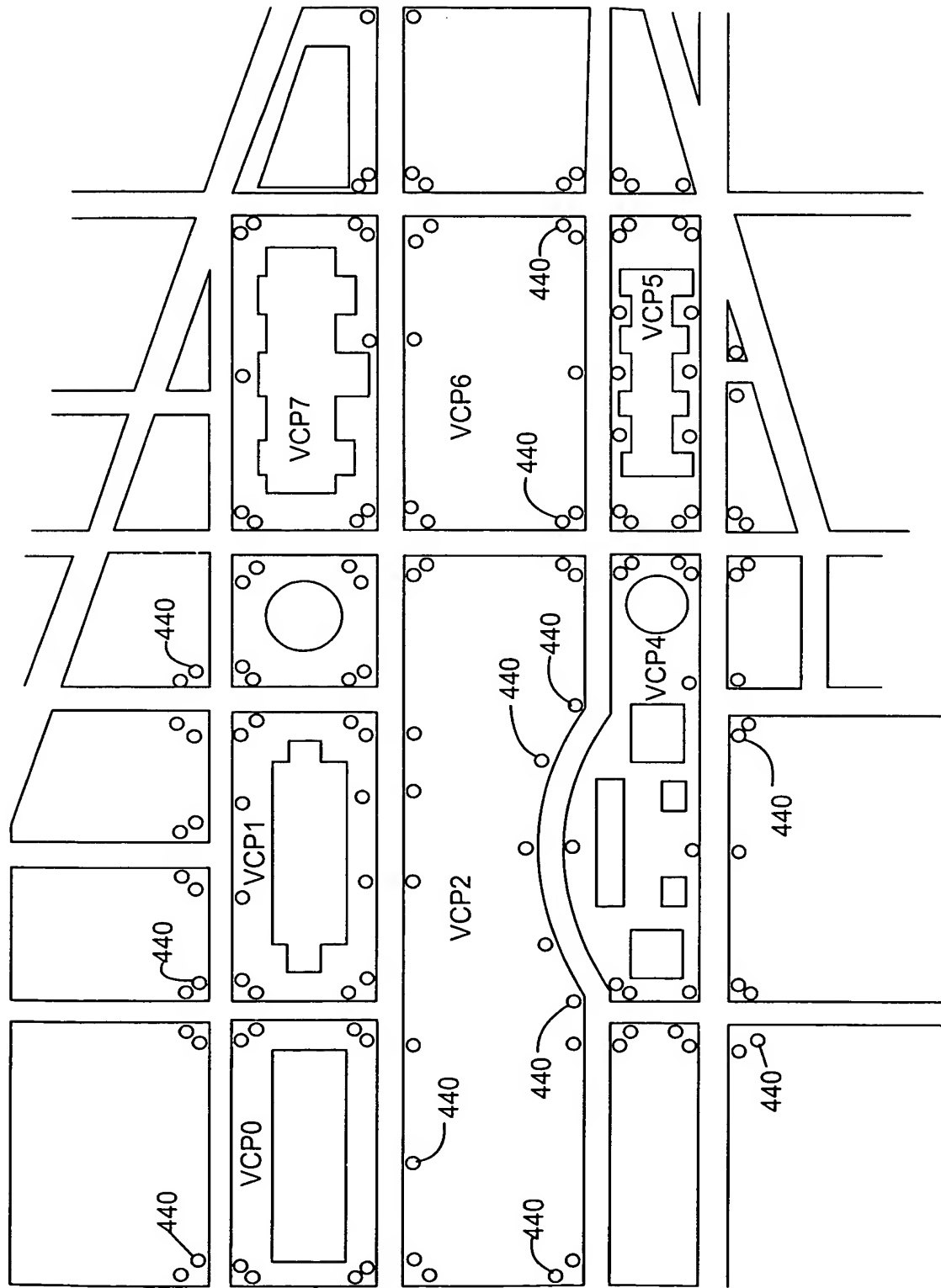


FIG. 16



**FIG. 17**





**FIG. 18**

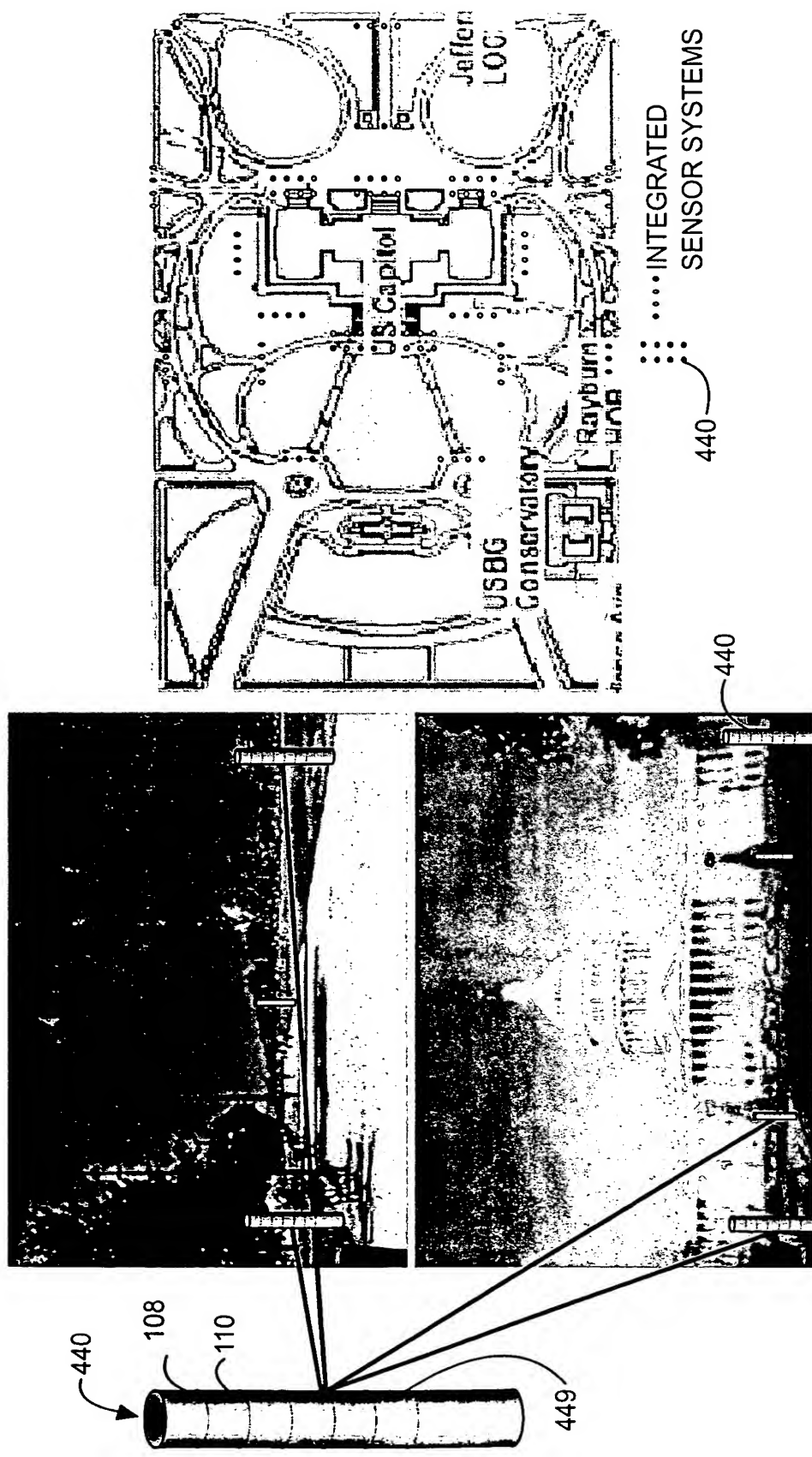


FIG. 19

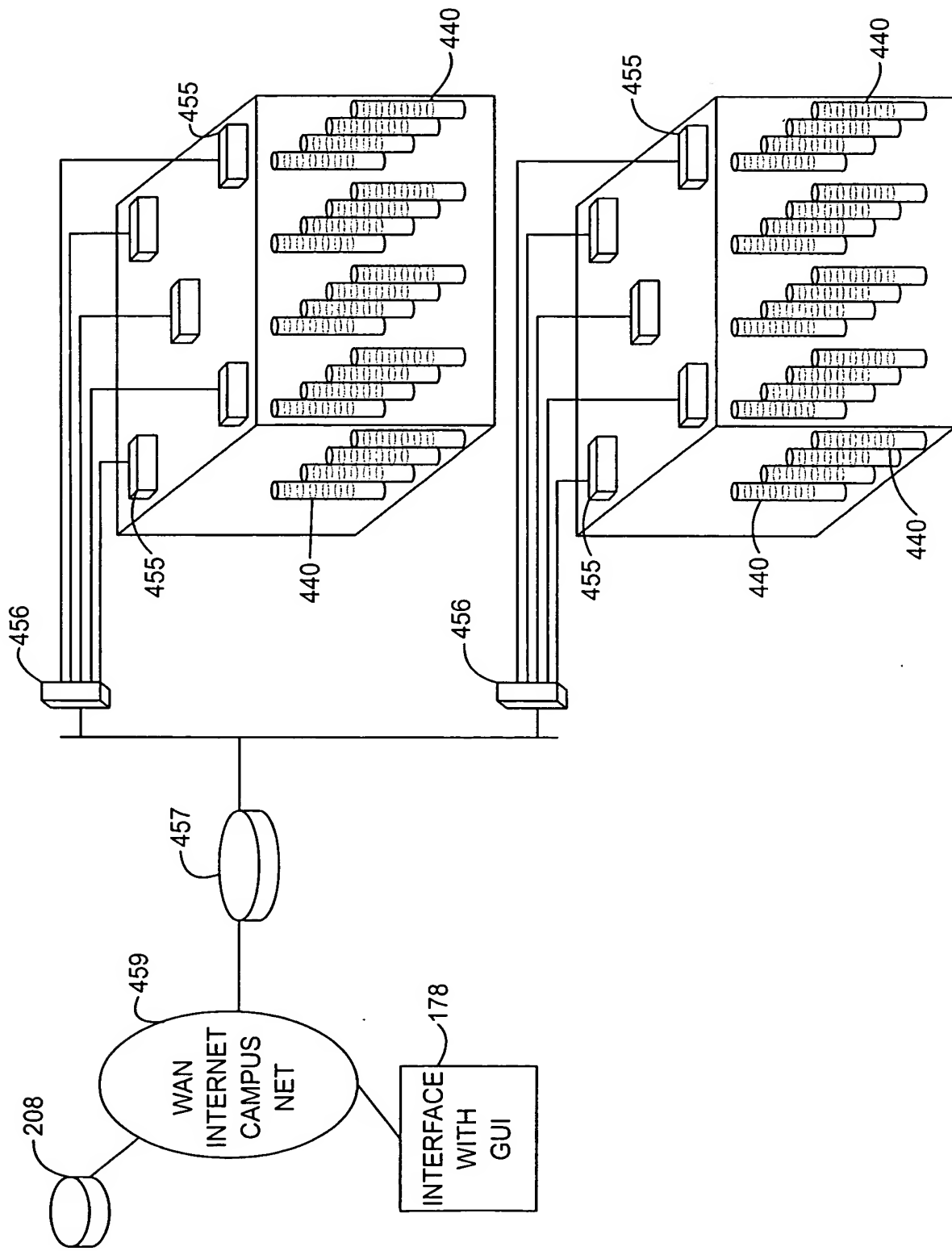
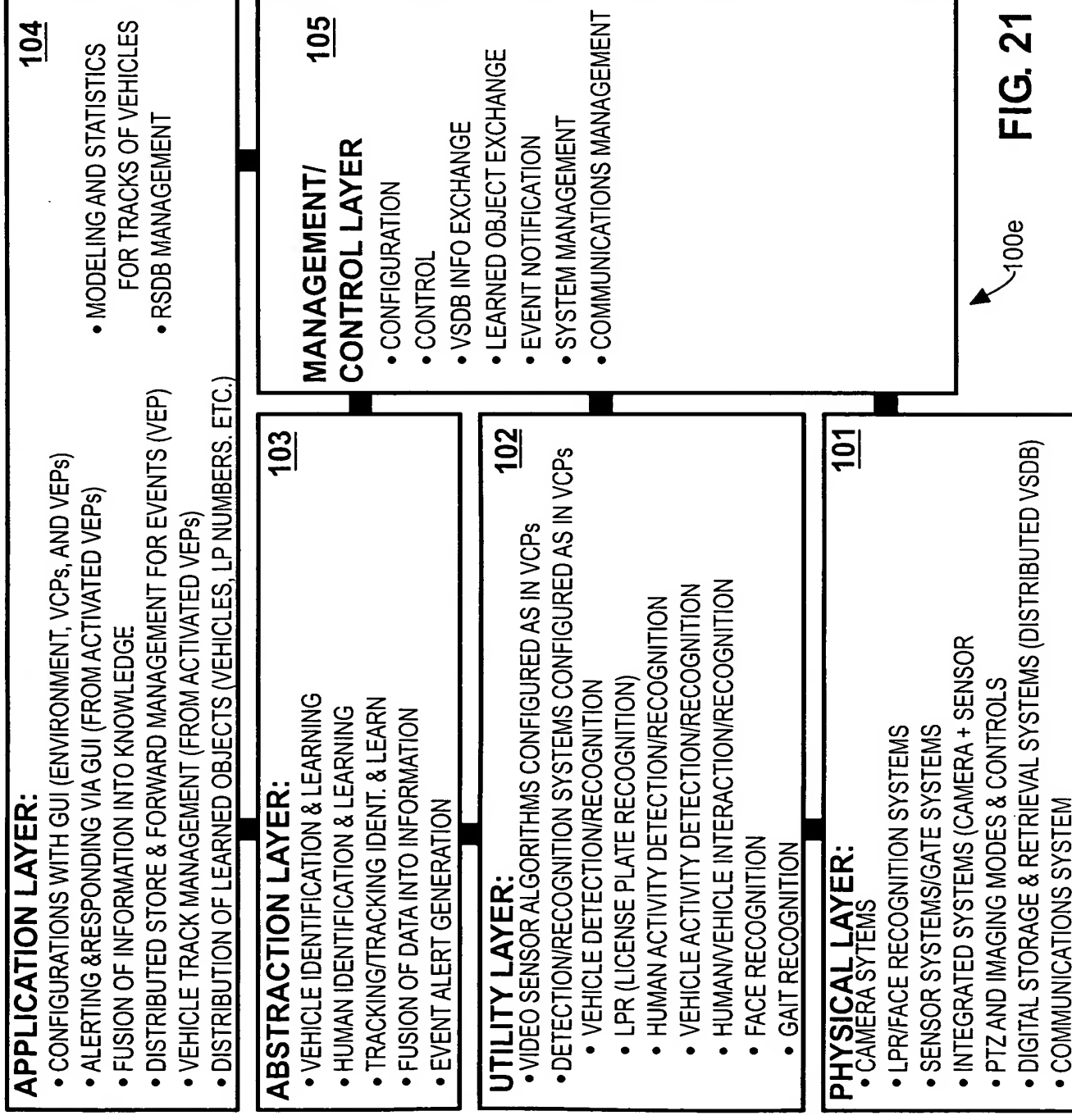
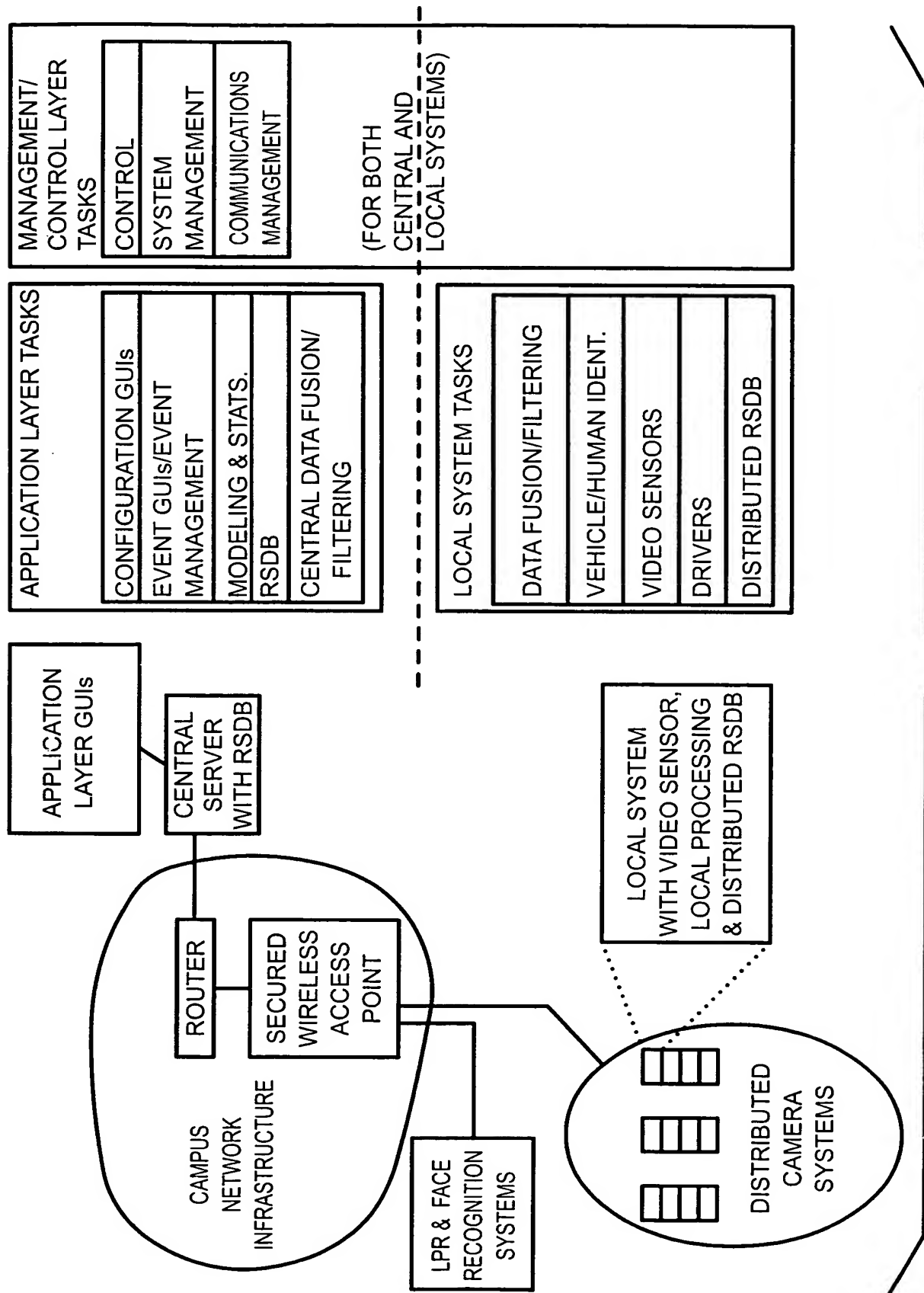


FIG. 20



**FIG. 21**



**FIG. 22**

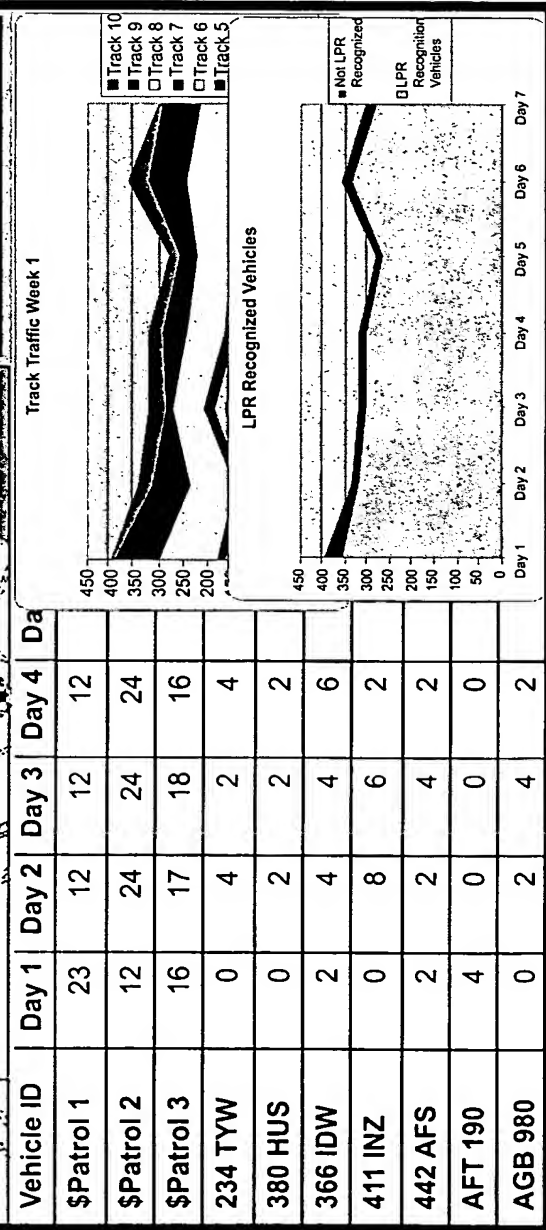
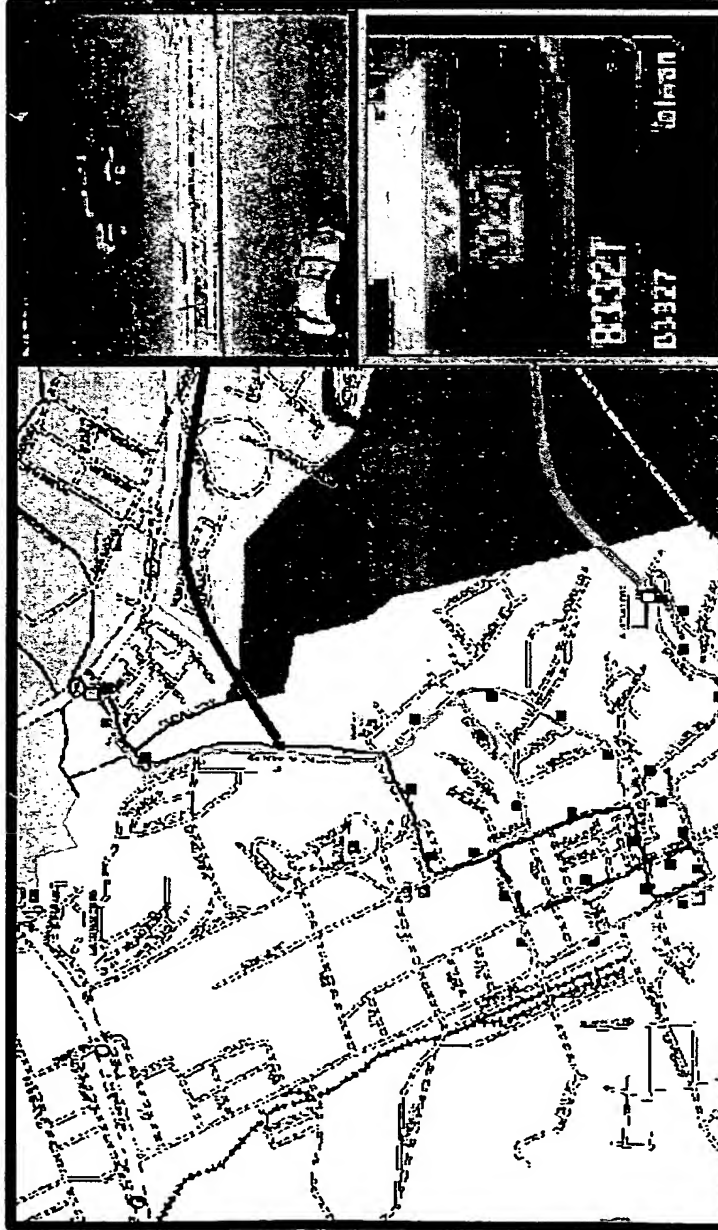
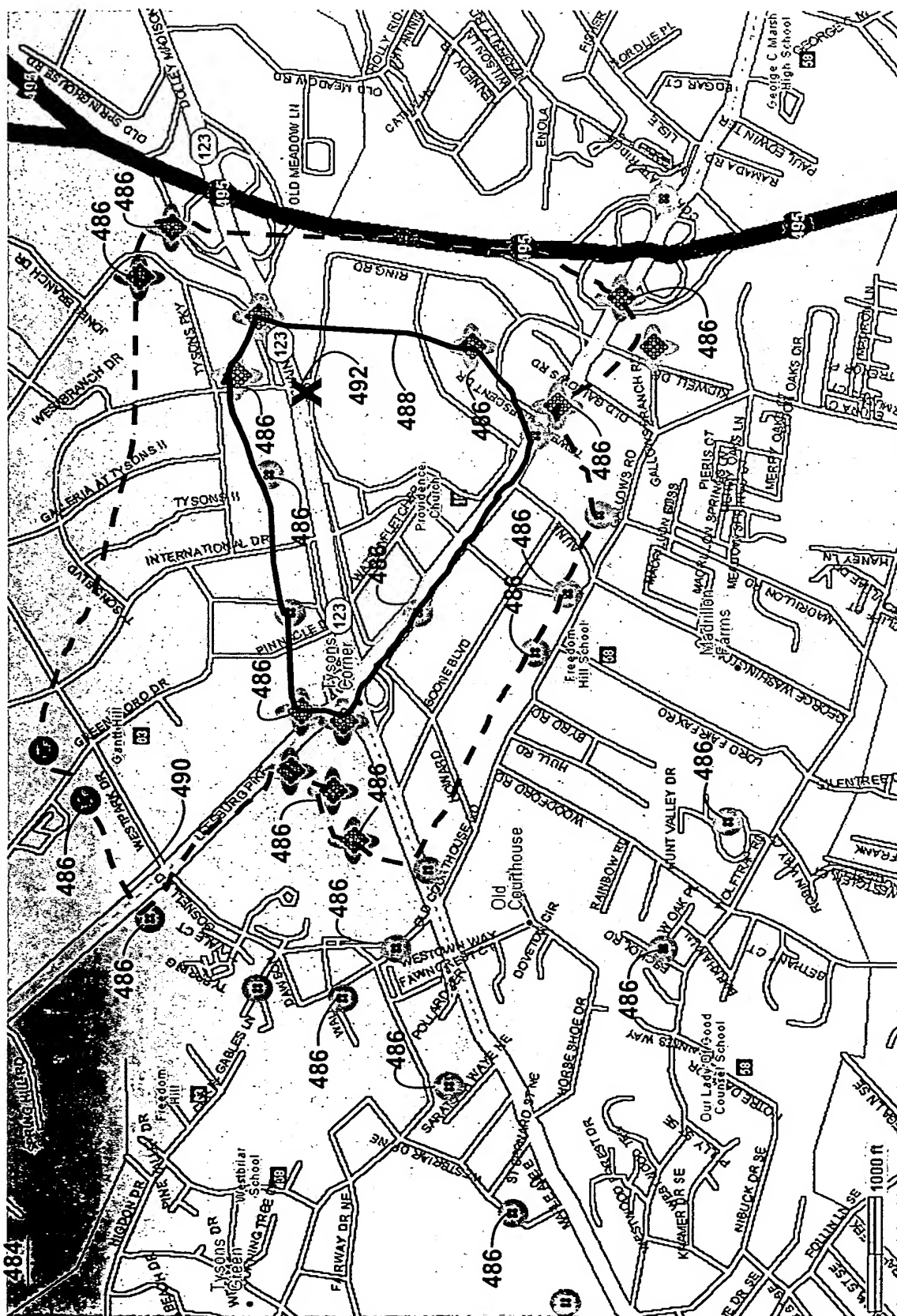
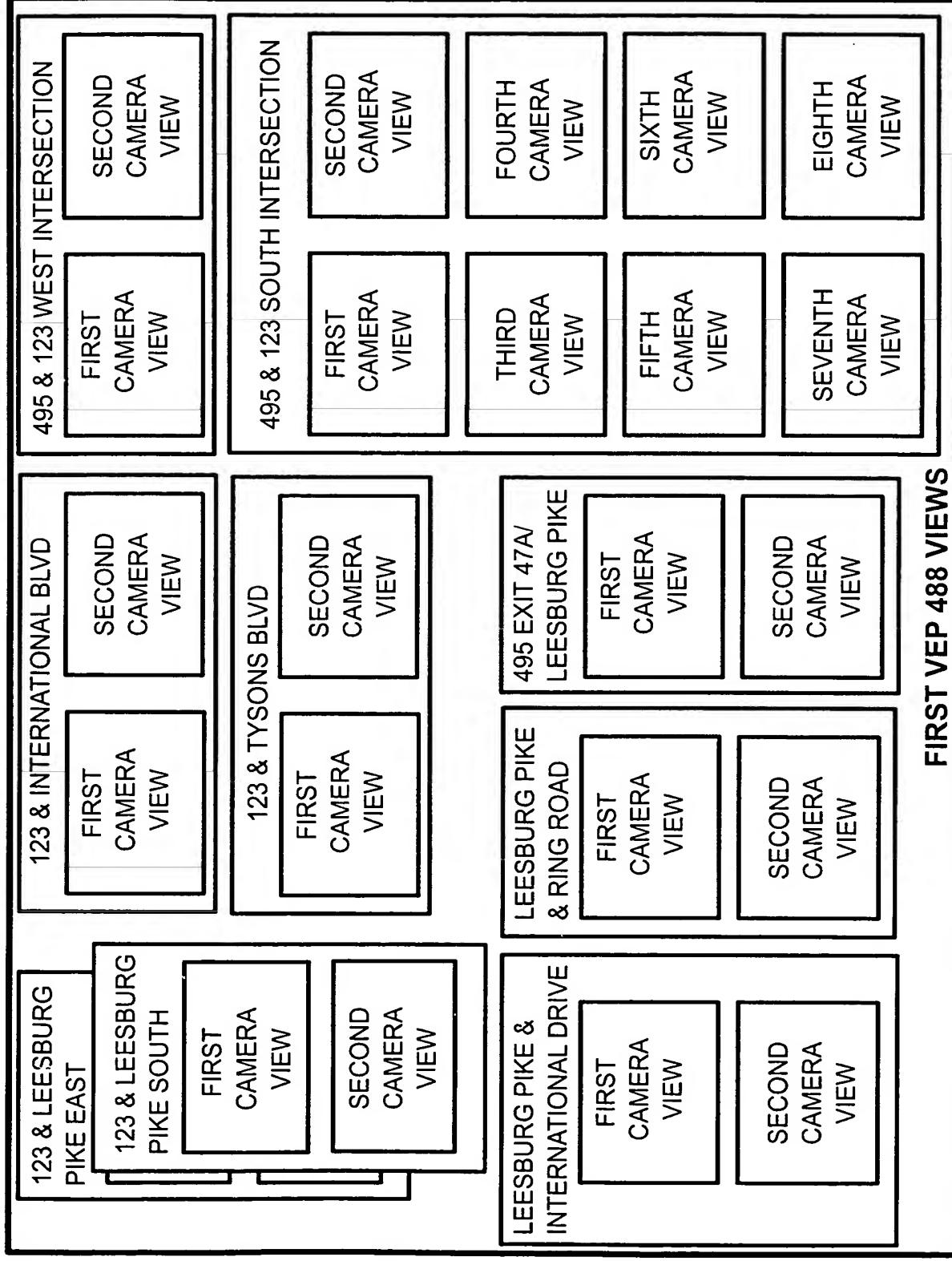


FIG. 23



**FIG. 24**



**FIG. 25**



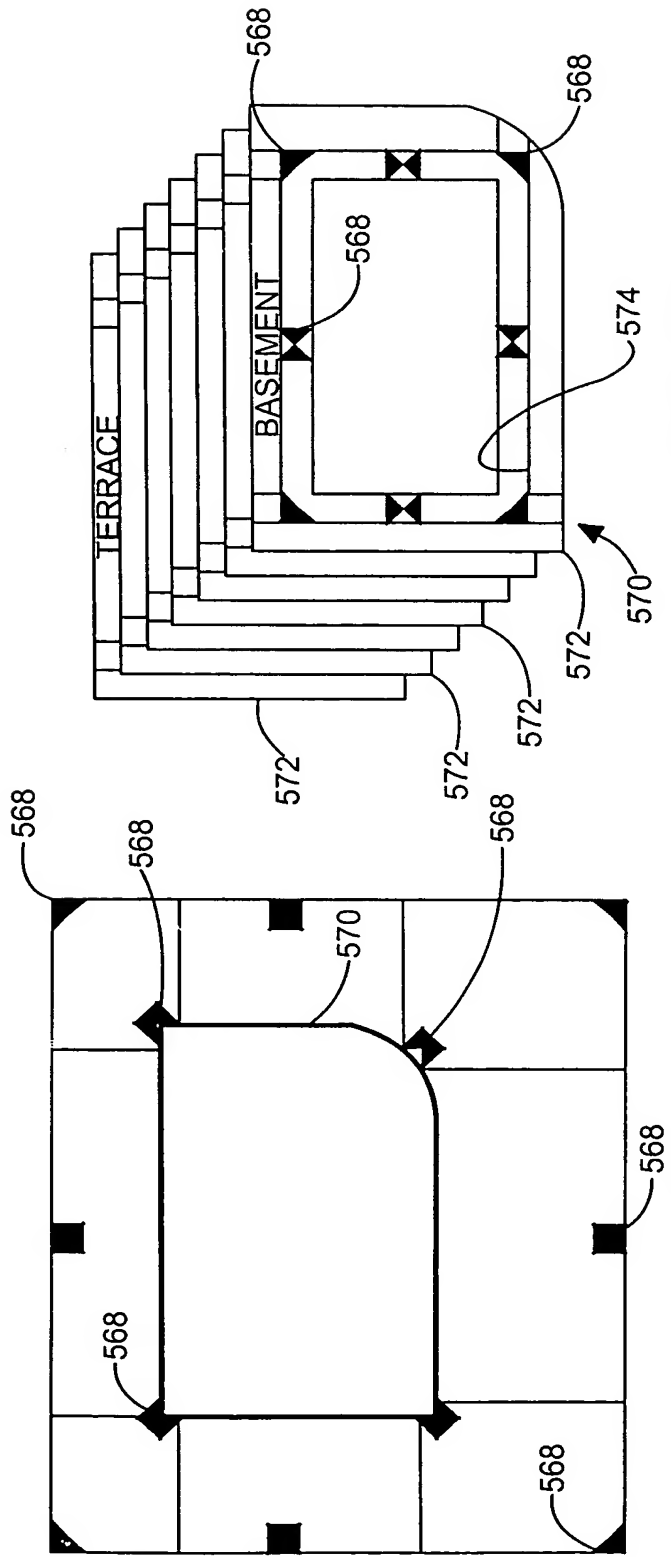


FIG. 26b

FIG. 26a

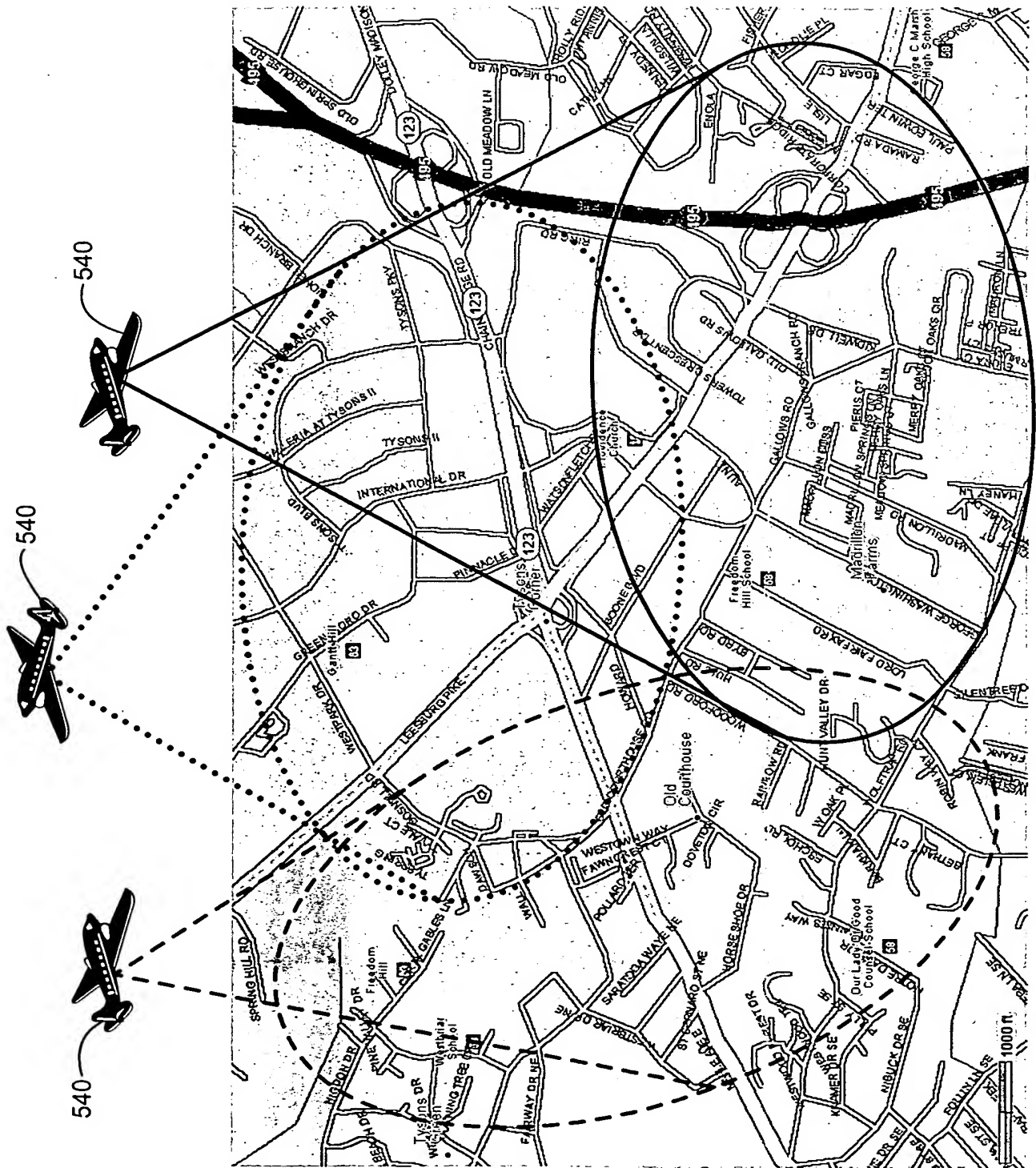


FIG. 27

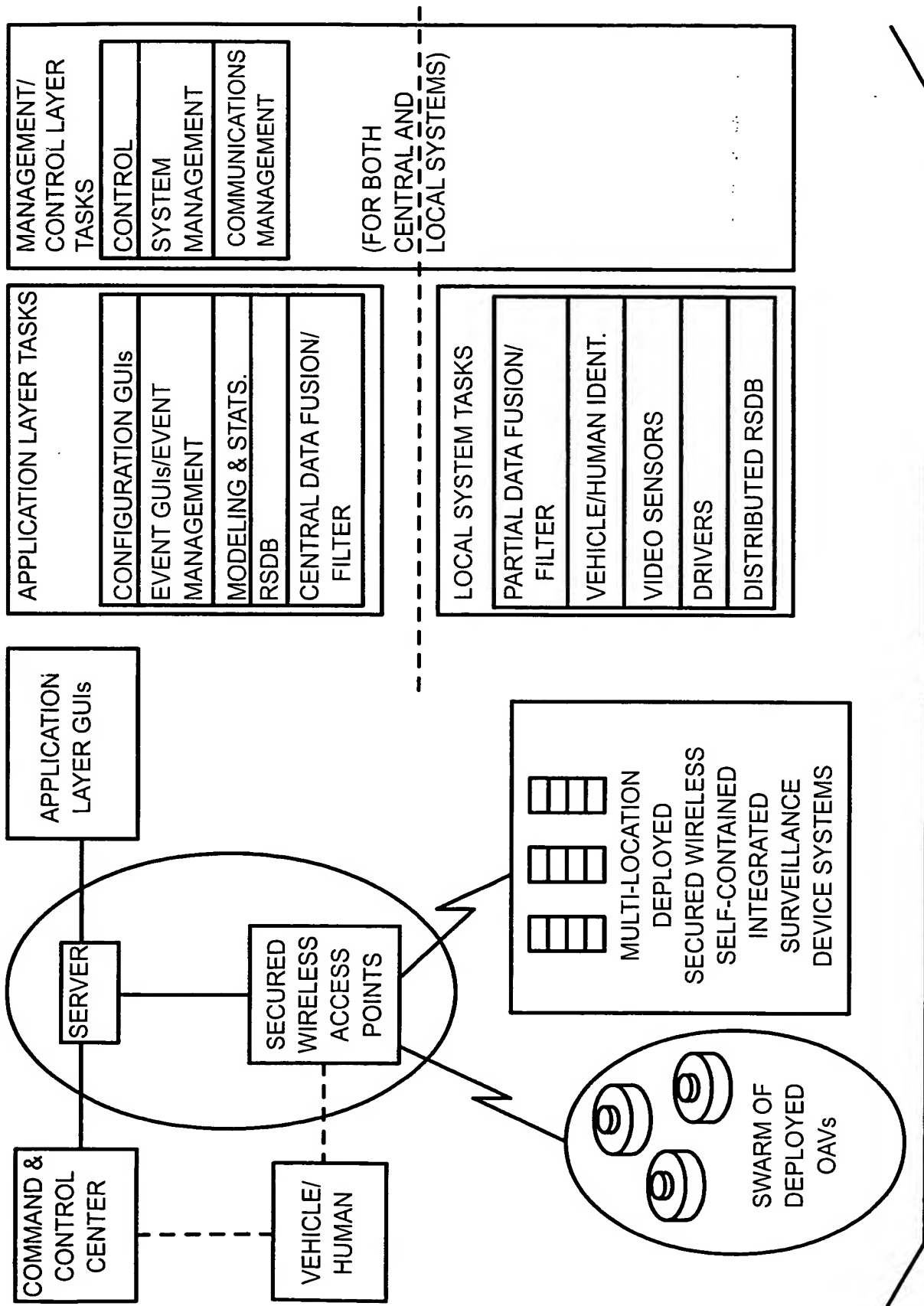


FIG. 28